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# WILSON'S

# PHOTOGRAPHIC MAGAZINE

FOUNDED IN 1864 BY EDWARD L. WILSON

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MRS. EDWARD L. WILSON, Proprietor

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# EMBELLISHMENTS.

*January.*—Frontispiece. By DUDLEY HOYT, New York. Engraved supplements from photographs by GAY STUDIO, Fall River, Mass.; H. H. LATTAN, Chicago, Ill., and C. F. EMENY, Sudbury, England.

*February.*—Frontispiece and one engraved supplement from photographs by KENNETH ALEXANDER, Millville, N. J. Engraved supplements from photographs by M. A. BLAZIER, Lebanon, Pa.

*March.*—Frontispiece. MR. A. F. BRADLEY, by MRS. GERTRUDE KASEBIER, New York. Engraved supplements from photographs by HOLLINGER, New York; A. F. BRADLEY, New York; B. J. FALK, New York, and the WARD STUDIO, Connellsville, Pa.

*April.*—Frontispiece. By E. B. CORE, New York. Engraved supplements from photographs by GEO. G. ROCKWOOD, New York; KOSHIBA, New York; S. NEWMAN, New York.

*May.*—Frontispiece and five engraved supplements from photographs. By O. H. BOYE, San Francisco, Cal.

*June.*—Frontispiece. By S. H. LIFSHEY, Brooklyn, N. Y. Engraved supplements from photographs by W. N. BRENNER, Cincinnati, Ohio; D. PERELL, Sharon, Pa.; A. KRAUTH, Frankfort, Germany; R. FENDIUS, Magdeburg, Germany, and K. WEGSCHEIDER, Berlin, Germany.

*July.*—Frontispiece. By J. M. BRIGHAM, Battle Creek, Mich. Engraved supplements from photographs by F. J. DENTON, Wanganui, New Zealand; J. E. MOCK, Rochester, N. Y.; MEREDITH JANVIER, Baltimore, Md., and R. DUHRKOOP, Hamburg, Germany.

*August.*—Frontispiece and four engraved supplements from photographs by VANDER WEYDE, New York. Six views Dresden Exposition.

*September.*—Frontispiece and four engraved supplements from photographs by S. H. LIFSHEY, Brooklyn, N. Y., one engraved supplement from photograph by CHAS. W. JEROME, Minneapolis, Minn.

*October.*—Frontispiece and five engraved supplements from photographs by F. MILTON SOMERS, Cincinnati, Ohio.

*November.*—Frontispiece by TOWNSEND STUDIO, Lincoln, Neb. Engraved supplements from photographs by C. F. TOWNSEND, Des Moines, Iowa, and the TOWNSEND STUDIO, Lincoln, Neb.

*December.*—Frontispiece and two engraved supplements from photographs by ARTHUR HAMMOND, New York. Engraved supplements from photographs by BLISSENBACH STUDIO, Mankato, Minn., and FRED. J. FELDMAN, El Paso, Texas.

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Fendius, R.—June

GAY Studio.—January

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Koshiba.—April
Krauth, A.—June

LATTAN, H. H.—January
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MOCK, J. E.—July

NEWMAN, S.—April

PERELL, D.—June

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Copyright, 1908
By Dudley Hoyt, New York

By Dudley Hoyt, New York

*Awarded Diamond Medal of Honor*, 1908

# WILSON'S PHOTOGRAPHIC MAGAZINE.

FOUNDED IN 1864 BY EDWARD L. WILSON.

VOL. XLVI JANUARY, 1909 No. 625

## THE NATIONAL ASSOCIATION.

THE most interesting event of the month in professional photographic circles is the annual executive meeting of the Photographers' Association of America, when the officers elected at the last convention will meet and formulate their policy for 1909.

It is hardly necessary for us to state again our firm belief in associations in general and "the National" in particular. No journal has labored so long or so consistently in behalf of the associative idea—we do not say it in any boastful spirit, simply stating a fact. We yield to none in our desire to forward the best interests of the P. A. of A.

One of our Boston contemporaries prints in the current issue an able and interesting editorial on the National Association. Many of its suggestions are good, and we fully share its appreciation of the many good qualities of President Barrows, who has shown by his record of many years of faithful and highly efficient service that he is a man among men and thoroughly well equipped for the immediate task before him.

It is with the last sentence in our contemporary's editorial that we take exception. It reads: "And may it be announced, emphatically, as never before, that this particular event (the 1909 convention) *will be the greatest annual conclave ever held in the history of the Photographers' Association of America.*"

This is the overconfidence, the cocksureness, that begets indifference and failure. If we are all quite sure in our own minds that the event which is to take place six months hence is already an accomplished success, and "the greatest ever," there is nothing to worry about; we can all sit back and wait until the time comes.

We believe in the great American "boost"—it is invigorating and uplifting. We have done our share and are prepared to do more; but what avails the cause that is "boosted" if it does not "make good"—that American trait which is the envy and admiration of the nations?

Will President Barrows and his officers "make good"? We sincerely hope so. It cannot be done by simply saying it can be done. There is much to be done by the rank and file of the association if its power and prestige are to be increased. The fact cannot be denied that the last few conventions have been a waning power. It is an open question whether or not the Association is living up to its charter.

The editor of Abel's *Photographic Weekly* thinks it is not, and he and his weekly cannot be accused of lukewarmness in Association affairs.

We sincerely hope that President Barrows is taking these matters under advisement, and not sitting back with the assurance that the Rochester meeting will be the greatest ever. It may and it may not.

The prophecy business can be largely discounted.

## TWENTY-FIVE YEARS OF PHOTOGRAPHIC ACTIVITY.

BY SIDNEY ALLAN.

We do not seem to be the only people who know how to do things. The German photographers seem to have learned from us how to draw attention to themselves. R. Dührkoop, in particular, has developed into an expert follower of our American principle: "You have to advertise yourself if you want people to know what you can do."

Few photographers have ever been as much and as well advertised as R. Dührkoop at the occasion of the twenty-fifth anniversary of the opening of his Hamburg studio, October, 1908. He was hailed as a reformer. All the photographic journals were crowded with laudatory matter, some devoting an entire issue to the exploitation of his artistic merits. The daily press joined in the general praise. Festivities were arranged, and he was made the recipient of various professional and municipal honors. The photographer himself established a fund for the annual awarding of a bronze medal for the best efforts in artistic portraiture. And in an apparent attempt to surpass all these signs of appreciation, and to put a final climax to all these tokens of affection, Professor Emmerich, of the Munich School of Photography, issued a handsomely bound booklet of sixty-nine pages and fourteen full-page illustrations to commemorate the event.

It is exceedingly well gotten up, and makes throughout a dignified impression. Even Strauss, of St. Louis, must feel slightly embarrassed at this masterly feat of self-advertisement. Dührkoop, in this instance, went him one better. The book is edited by K. W. Wolf-Czapek and divided into a preface and a dozen chapters or more.

A large part is devoted to the photographer's trip to America, what the professional press has said about him, what honors have been conferred upon him, etc. America surely has done its share to establish an international reputation for him. But the other countries do not lag much behind in this respect. Austria, Italy, France, and in particular England, and of course Germany have all generously contributed toward his fame as a photographer. As can be imagined, these pages furnish rather tiresome reading, even for the stanchest admirer of Dührkoop's work. They only serve to create a general impression of importance.

The biographical sketch, on the other hand, proves rather interesting. From it we learn that Dührkoop followed mercantile pursuits until he had reached the age of thirty-four, that he served no apprenticeship, but, after a few years of experience as an amateur, started at once into business, opening a little gallery in Hamburg in 1883. From the very beginning he pursued artistic aims, but with little success for the first ten years of his career. Only gradually the

merit of his innovations of home and outdoor portraiture, of tonal qualities and pictorial composition, was understood and appreciated. Not before 1899 did Dührkoop become an exhibitor. In the same year he had abolished the use of glossy paper for carbon paper and introduced the varied and more elaborate and artistic mounting of the pictorial photographer. His exhibition at the Hamburg Museum of Fine Arts proved an instantaneous success. The photographer was invited to exhibit all over Germany, and received medals everywhere. Soon after he began to invade foreign countries. He became a F.R.P.S. in 1908 and an honorary member of the Photographers' Association of America. Dührkoop is one of the few professional photographers who fully understand the value of exhibiting; it may not increase the photographer's income immediately, but it makes the man, his name, and his work generally known, and is sure to benefit him sooner or later. He has remained loyal to this policy, and is the most cosmopolitan exhibitor we are acquainted with, not excepting Mr. Stieglitz. In one year Dührkoop managed to send collections of his prints to Berlin, Birmingham, Boston, Bremen, Budapest, Darmstadt, Genoa, London, Vienna, and Zürich. A wonderful record, indeed! Dührkoop has now two studios—one in Hamburg and one in Berlin; alternately he and his daughter, Miss Minya Diez-Dührkoop, his principal assistant, supervise the two establishments.

Perhaps the most interesting contribution to the book is the brief chapter on "The Introduction of the Heliogravure Process for Printing Purposes." Dührkoop is of the opinion that no printing paper, not even carbon, is absolutely permanent, and that only a method in which printer's ink is used can produce enduring results. Or, in other words, that an etching or photogravure is more lasting than any photographic print made at present. Realizing this, Dührkoop, although fifty-three years old at the time, once more turned student, and, entering the Technical High School at Berlin, made a special study of the various printing processes. He decided finally upon the heliogravure process, and ever since has done all his printing, not only for large editions, but for the ordinary orders of six or a dozen prints, on a printer's press. In this way alone, he claims, can a photographic print ever rival the importance of a copper or steel engraving. And he furthermore tries to prove it by editing large portfolios containing series of portraits of well-known personalities. Thus he has published, in 1905, a portfolio of 120 prints, entitled "Well-known Men and Women of the City of Hamburg," and in the following years series of 48 and 62 prints of the faculties of the Berlin Academy of Sciences and Technical High School. At present he is engaged in a work more ambitious than any previous one. It will bear the title *Contemporaries*, and will embrace as complete a selection as possible of prominent German scientists, statesmen, authors, artists, etc., which Dührkoop is specially taking for the purpose. It will no doubt become a work of historical importance and the crowning effort of his unusually successful career.

A pity that we have nobody in America to undertake such an ambitious task! Have we no Dührkoop among our photographers, or is there a momentary slump in "contemporaries"? Who is at fault?

# THE FIXING BATH.

BY C. H. CLAUDY.

COMMON every-day hypo! The cheapest, least considered, most familiar, and most useful chemical in the dark room, when made into a bath, how many plates are made into crimes committed in thy name! This is a rank sort of paraphrase, but so are the failures scored by having a poor fixing bath. Both smell to heaven, and both are preventable by a little care compounded with an ounce and a half of facts. Here are the facts—the care can only be obtained at home.

In the first place the function of a fixing bath is to fix—to dissolve out all the chemicals of the emulsion, leaving only the reduced silver and gelatine. If a fixing bath doesn't do this, it isn't a fixing bath.

Hypo forms a double salt of silver and sodium when a plate is put in it, which salt is soluble in hypo. If you take a plate out when the creamy silver has disappeared, you have not given the hypo time to eliminate the double salt it has formed. If your bath is so weak it takes one-half hour to fix a plate; leaving it in the proverbial "ten minutes after the whites have disappeared" doesn't do any good. The double salt still remains.

How long a time a hypo bath should take to act depends (1) on its strength, (2) its temperature, (3) the thickness of the emulsion of the plate, (4) its richness, (5) the amount of silver reduced in the developer, and (6) its age and reducing ability. There are others also, but these will serve. But, as a working rule, a bath ought to fix out the free silver in five minutes at normal temperatures, and fifteen minutes ought to clear out the rest of the salts.

Hypo should have alum in it, and acid, and a little sulphite of soda. Plain hypo will fix plates, but acid-alum hypo fixes, clears, and hardens them, and they wash with less danger in warm water and weather. The sulphite, of course, is to assist in keeping the bath clear by preventing the developer, carried over into the bath from the development, from discoloring it.

Plain alum or chrome alum. For plates, chrome alum every time for maximum efficiency. For papers, chrome alum never, as it is very apt to give the whites a greenish tone. Plain alum hardens gelatine, chrome alum tans it. Plain alum will let a plate stand water which is warmer than normal; chrome alum permits almost any water and drying by a pretty fair heat.

There are all sorts of formulæ for chrome alum baths. The sulphuric acid bath is the commonest, and, also, the messiest and smelliest to make up. Try this, and see if it isn't easy and satisfactory. Take 80 ounces of water, and in it dissolve 12 ounces of hypo. *When thoroughly dissolved, and not before*, add 1 ounce of metabisulphite of potassium and 1 ounce of chrome alum. This beautiful green bath will keep well, fix strongly and not discolor, and tans hard. But do not use it for paper.

A bath which is frothy is old. A bath which won't fix in fifteen minutes ought to be discarded, except on double-coated plates in cold weather. A bath which has a muddy look is best down the sink. Sometimes a bath won't fix at all. That is a *sure* sign you need a new bath. Whether it is that the bath is too weak or over-

worked, or the action of the alum tanned the plate before what little hypo was left with its working clothes on could get up and tend to business, I do not know and do not care, but I do know that hypo is so much cheaper than plates that it is a mighty odd specimen of economy to use old baths.

Every plate you make is a potential dollar maker. If it is worth a ten dollar order now, and may be worth a dollar in five years at the cost of storage, it is worth keeping. If after indexing, labelling, and storing it for five years you find it all shot to pieces from improper fixing, with yellow spots where there ought to be no yellow spots, you will have had a first-class demonstration of the penny wise pound plumb idiotic policy which permitted old fixing baths! Same thing about washing—poor washing should have no place in your commercial economy, and if you cannot get your men to test for hypo with permanganate, either do it yourself or see that they leave them washing, under proper arrangements, long enough to eliminate all the hypo which will do any harm. A fresh fixing bath is all right in the fixing box, but all wrong left in your plates when they are put up to dry.

Now for papers. I mean velox and bromide and such, which have to be fixed just like plates, only not in chrome alum. Whereas alum and acid are advisable with plates, with papers they are a necessity, or the emulsion won't last under washing, and blisters will cause cuss words which are not fit for publication—otherwise I would explain further.

A first-class bath for paper is as follows: Water, 128 ounces; hypo, 1 pound. *When dissolved, and not before,* add metabisulphite of potassium, ½ ounce; powdered alum, ½ ounce.

This is enough to fix a couple of dozen 10 x 12 prints. It isn't enough to last a week with a lot of big work. Remember, that in every 10 x 12 there are 120 square inches of surface. In two dozen there are 2880 square inches of surface. In one 4 x 5 there are 20 square inches of surface. So the bath will fix easily a gross of four by fives. But do not think that a gross of four by fives means a gross of any size sheets. And, once more, hypo is so very much cheaper than prints that it pays to use a fresh bath.

You will find a milky deposit in a bath which has been used to some extent. It doesn't do any harm—probably it is mostly sulphur precipitated. But when the bath has this deposit and gets and stays frothy, and at least six months before it has any scum on it, throw it away. And the very best way of all is to keep a few spoiled plates and films about—films are best because easiest—and when in doubt try the power of the bath. If it fixes in eight or nine minutes, it is still fit for use.

It may be you would like to know whether your prints are being properly fixed or not. There are two easy ways of knowing: One of them, of course, is to add iodide of silver to the developer in about the proportions of 10 grains per fluidounce of concentrated stock solution—not, as some benighted and rather stupid inquirers have done, 10 grains per fluidounce of developer as it is used in the pan. This iodide does several things. It prevents abrasion marks, it forms an iodide of silver on the top of the print, which is canary yellow in color, and it softens the print. The canary-yellow iodide of silver is soluble in hypo, but less so than the bromide and chloride of the emulsion. Consequently, when the yellow color is gone, it is a safe bet the other salts are gone also. But this means that the whole print should be kept well immersed all the time.

The other way is to take a print and

wash it thoroughly. Then throw a few crystals of sulphide of soda—please mark *sulphide*, and not sulphite—into a few ounces of water, and immerse the print in the solution. If the print was properly fixed it won't hurt it. If it was improperly fixed you will have some nice brown stains where the hypo did not do its work. Sulphide of soda is the normal redeveloper for bromide and chloride papers, used for getting browns and sepias with prints first bleached by other means. It is a common and inexpensive chemical, and where large batches of prints are fixed, and when a reputation for doing permanent work is desired, a pound of it can well be stocked and used.

There are a great many people who, observing the wonders and marvels of photography, get it into their heads that it is all as automatic as the chemical action. Thus a plate put in the developer develops. Ergo, a plate or a film or a piece of paper thrown into a fixing bath should fix. So it should, and so it will if it goes into the bath and stays there under the same conditions as the plate originally entered and remained in the developer.

A plate is usually either developed in a tray with solution carefully rocked over it, or it is put in a tank where the divisions keep the plates from touching. Everyone knows how important it is to keep plates from touching each other while developing. Nobody, apparently, cares if films and papers are thrown hap-hazard, helter skelter, into a bath and allowed to stay there to fix, touching each other, lying on top of one another and with little chance for the hypo to creep in and get to work as it should.

Paper should not be expected to wash unless running water—or water frequently changed—can get at it, both sides, all the time. It is for this reason that changing wåter is the better way for the careless operator tobe made to work. If he faithfully handles over every one of a batch of prints twelve times, from one tray full of water to another, changing the water every time, and if the tray is deep enough and has enough water, it is pretty certain the prints are washed. But a couple of hundred cabinets in one big tray with a tube of running water stuck in it, and the whole left for a couple of hours, may wash half a dozen prints well, and not more than touch the remainder. Take the drippings from one of your supposedly washed prints and let it drip into a graduate in which one tiny crystal of permanganate of potash has colored an ounce or so of water a beautiful pink. If the pink stays pink for several minutes, you are all right. If it turns yellow, you would better install a new washing device.

It is almost impossible to wash prints so they will not cause a hypo reaction with permanganate of potash, one of the most sensitive chemical changes that exists taking place between these two chemicals in each other's presence, but a three-minute test for paper is a pretty fair test—a five-minute is better.

Hypo, uneliminated, will make brown stains in papers as sure as fate, and there isn't any use, sense, or reason for doubting it or leaving it for future kicks, or "hoping" it won't happen.

I dare say this is a very prosy sort of story, and that seven out of ten people will skip it, and that two out of the remaining three do not need it. But the tenth man needs it pretty badly, and if he will just read it through and sit up and take notice, and try going broke over a fresh barrel of hypo and a washing device that washes, he will have fewer spoiled prints, less kicks, and, best of all, he will have more successful prints from each batch of paper.

## THE HOME OF THE GOLDEN DISK.

THE following account of "The Little Galleries," as the home of the Photo-Secession is called, from the pen of one of its associates, Mr. Paul B. Haviland, is reprinted from the current issue of *Camera Work* for the benefit of our readers who have not had the pleasure of visiting the galleries.

When, on April 20, 1908, "The Little Galleries" turned over their original rooms at 291 Fifth Avenue to a tailoring establishment, a chapter was closed in the history of the Photo-Secession. For three years, under the directorship of one man, who gave his entire time to this educational work, exhibitions have been held in these rooms, which have attracted the New York public, compelling the attention of dealers, critics, and art institutions, and obtained that recognition for photography as an art for which the champion of the new movement has been striving.

Perhaps the first time you went up the narrow elevator which took inquirers to the top floor, and entered the room to your right, the director, the leading spirit, would be found in conversation with some friends or visitors. The minute you gazed into the rooms so fittingly designed, you seemed to breathe a different atmosphere. The quiet neutral tone of the walls and of the woodwork, the softly diffused light, the happy spacing and proportions of the rooms and their furnishings, the color note of autumn foliage in the big brass bowl in the centre of the farther room, all combined to give you from the outset a feeling of harmony, balance, and repose. You insensibly relaxed. You fell into a receptive mood.

Before you could phrase your inquiry as to whether you were in the right place or were addressing the proper person, you would be greeted by a slight nod of the head, and a "You want to see the photographs?" They are inside. Walk right in." Entering the rooms to your left you found yourself confronting a set of pictures which immediately arrested your attention. You looked to the catalogue for the name of the artist; the name was unknown to you; the titles did not help you. Giving up the catalogue you returned to some one picture which had attracted your attention more particularly; then to a second, then to a third—and you wondered at it all. Surely these were only photographs obtained by a mechanical process incapable of recording anything but facts, and yet they appealed to your emotions. There was atmosphere, there was feeling in them, an unexplainable something recognizable in every one—the stamp of individuality. Startled out of your reverie by a "Well, what do you think of them?" you turned around and met a pair of dark eyes behind glasses, looking at you from under a mass of bushy black hair. If your answer showed any response whatever to the artist's appeal, then you had a treat before you. Conversation warmed up; you branched out into other fields—painting, etching, sculpture, music; you heard of personal experiences with casual visitors, and with friends, some encouraging, some discouraging. For half an hour, for an hour, or two hours you forgot all about New York, the rush of the subway, and the struggle after the almighty dollar; and when you got back into the street, into the turmoil of every-day life, you felt that you had discovered an oasis, seemingly thousands of miles from the scorching struggle for life, where at your pleasure you could stop and refresh yourself in the peaceful enjoyment of the beauty of life; a quiet

nook in a city of conflict, where you breathed an atmosphere of mutual helpfulness and understanding. You began to wonder also how much or how little there was in the rumors you had heard—that the Photo-Secession was merely an organization working in a narrow circle for the benefit of a few individuals of the photographic world. The Secessionist spirit loomed far bigger before you. The label of Photo-Secession seemed almost a misrepresentation, apparently narrowing its interest to photography—while your talk with its director had left you under the impression that its scope spread far beyond this first field of its activity. Its light had been first and foremost for recognition of photography among the arts, but now that this object has been attained, could it not legitimately bring to the fore new and interesting work in other arts, provided the men it championed worked in a medium which allowed personal expression.

Etching, drawing, painting, sculpture, music, seemed to be its legitimate province. We are dealing, not with a society, not with an organization, as much as with a movement. The Secession is not so much a school or a following as an attitude toward life; and its motto seems to be: "Give every man who claims to have a message for the world a chance of being heard."

Under our social system each generation is living forty years behind its time. Our laws are written by men past their sixties, and reflect ideas which they formed when they were in their twenties. The artists now in vogue are either dead or old men. Ibsen writes: "The younger generation is knocking at the door," and the older generation is trying to keep it closed before them. The Photo-Secession, through the "Little Galleries," has tried to help the modern tendencies to come to the front, to show the public what was being done, and not what had been done; to make people look, not to the past, but to the present and the future; and now that the original "Little Galleries" are closed, having accomplished their purpose, the Photo-Secession is still living, and stronger than ever through the interest it has awakened widespread among the public.

It has its new gallery right across the hall from its old quarters, and under the same enthusiastic and devoted directorship it will pursue its work without any fixed programme, for, depending on work which is yet undiscovered or possibly not even produced, it knows not what its evolution may be. It will give those of strong individual artistic personality a chance to make their appeal to the public, even though it may not feel in unison with them. It will be sufficient that the work be of the kind that makes one interested in discovering the message of the artist.

If it has led one step farther toward the happiness which is to be found in love and understanding, its efforts will not have been in vain, and such a result will be sufficient reward for the man who has given so much of his time, energy, and financial support, in accomplishment of this self-appointed task.

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*A Green Stain for Wood Photograph Frames.* A good green stain for wood frames may be made as follows:

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|---|---|
| Copper acetate . . . . . | 2 ounces. |
| Acetic acid (glacial) . . . . . | 4 drams. |
| Cream of tartar . . . . . | 4 drams. |
| Water to make . . . . . | 1 pint. |

Shake up the solution from time to time until all has dissolved, then allow to stand for a few hours, and if any sediment is found decant the clear portion before use.

## GASLIGHT PAPERS.

THE name "gaslight papers" is applied to a number of sensitive papers by different makers which are now on the market which resemble each other in these respects—that they are sensitive enough to allow the printing on them to be done by gaslight, but are not so sensitive as to require a dark room for development. If they need a dark room they are called "bromide papers." It must not be supposed from this that gaslight papers are not in the strict sense of the word "bromide" papers. The actual composition of the emulsion that is applied to them is the maker's secret; but it is very generally supposed that many of the gaslight papers only differ from "bromide" papers in speed, silver bromide being the basis of each. Be that as it may, photographers are agreed in calling the fast papers which must be developed by red or yellow light in the dark room "bromide papers;" and those which have to be developed also, but with which the developing can be done in ordinary gas or lamp light, "gaslight papers;" and each term is always used in that sense in this article.

The beginner will very naturally wonder at first how, if the paper can be printed in gaslight, it can also be developed in the same light without fogging it. It is all a matter of strength of light. The printing is done six or eight inches from the gas burner, with its light shining straight through the negative. The developing is done six or eight feet from the burner, and, as far as possible, the paper is kept in shadow until it is fixed, that is all. It must never be forgotten, when handling gaslight paper, that it is sensitive to the light in which the manipulations are being performed; and that if it is left exposed long enough, or if it is brought too near the light, it will be fogged. It will be understood from this that gaslight paper is far more sensitive than P.O.P.—many hundreds of times, in fact. So sensitive is it that daylight, unless it has passed through yellow glass or fabric, must on no account be used when handling it. The electric arc light also would spoil it almost directly; and the light of incandescent gas should never be allowed to fall directly on an unprotected piece of gaslight paper, unless it is at least ten or twelve feet away from the burner. The manipulation of the paper can be carried out quite comfortably with ordinary gas or lamplight, or, with slight precautions, with incandescent gas. A fire in the room will not hurt it in any way.

There is one peculiarity about gaslight papers which should be noted at this stage. They are very liable to what are called "stress marks," and the glossy surfaced gaslight papers are more liable than any. These stress marks are caused by some slight rubbing or scratching of the face of the paper, such as might happen if the corner of one piece were drawn across the face of another. No sign of the rubbing would be seen at the time, but when, later on, we come to develop that piece of paper, the place where it was rubbed will develop up into a black line, which will be a stress mark. As the paper is very susceptible to these marks, it follows that it should be handled very carefully. The marks can be removed subsequently, with some little trouble and risk of injury to the print; but it is better to avoid them as far as possible.

There is one good feature about the ordinary forms of gaslight paper, and that is that they will give a bright picture, with plenty of contrast, from a negative which appears to be quite a ghost. In

fact there is no other method of printing a thin negative which will compare in this respect with gaslight paper. On the other hand, if our negatives have plenty of contrast, still more if they have too much, the ordinary forms of gaslight paper are unsuitable. For such a case, special gaslight papers, generally distinguished as "Portrait" grades, are made. These give soft prints from strong negatives. Such grades are generally four times as fast as the ordinary, so that the exposures are much shorter; they must also be more carefully protected from unnecessary light during handling.

As gaslight papers have to be developed, no alteration is seen in the appearance of the paper during printing. There is just this exception to make to this statement, that sometimes with very hard negatives some of the outlines are faintly perceptible before development. Enough to be of any use as a guide cannot be seen, however, and we therefore have to depend entirely on timing to get the exposure correct.

When a packet of gaslight paper is opened and one of the pieces is taken out, at first glance the two sides may look alike, and the photographer may wonder how he is going to tell the back from the front. But a glance should be sufficient to show him that, however flat the paper may be, there is a slight curl to it somewhere, generally at the edges, but often all over it. The inside of the curl is always the sensitive side. There is no real difficulty in recognizing the front in this way at a glance.

Before any attempt at printing is made, the solutions required for development and fixing should be mixed up. There is no magic in formulas, and the best possible course is to use the formula given by the maker of the paper that is to be employed. Some makers give several formulas, and some only one; but practically all give a metol-hydrokinone developer. There is no doubt whatever that metol-hydrokinone is more suitable than any other developing agent for papers of this class. Amidol and rodinal are both used by many workers; but the beginner will do well to use metol-hydrokinone, at least at first, and to make it up strictly to the maker's formula. We mention this because the composition of the developer seems to be more important in the case of gaslight papers than with either plates or bromide papers; and it does not at all follow that a metol-hydrokinone developer which is very good for either of the latter is any use for gaslight paper at all.

The fixing bath that is to be preferred is an acid-hypo one, except when amidol is the developer, when plain hypo is better. The strength of the fixing bath is not such a vital matter, and one made up by dissolving three ounces of hypo and a dram of potassium metabisulphite in a pint of water will do for all makes of paper. It need not be freshly mixed, but it should not have been used before.

When the developer and fixer are mixed up, all is in readiness for the printing. We will suppose that this is going to be done in an ordinary room where there is no water supply or sink, as this is the most comfortable way on a winter's night. A newspaper is spread on the table to save the cloth, and a board or sheet of card is propped up so that everything on the newspaper may be in shadow. A jug of water and a pail will be wanted, and two dishes. One of these is for the hypo and should be a deep porcelain one for choice; the other is for the developer, and should not be much bigger than the print, so as to economize solution. The packet of paper being opened carefully, on account of stress marks, a piece is taken out of the middle of the pile. The end piece should not be taken as this would leave the next with its sensitive surface against the packing card, and if it were put away for a week or two like that it

would almost certainly be spoiled. The paper is put into the printing frame, its back is closed, the packet is put on one side, and all is ready for exposure.

Here, much as we should like to give definite information, we cannot do so to be of any real use. The strength of the light, the make of paper, and above all the character and color of the negative, have an enormous influence on exposure, and the only safe plan is to ascertain by actual trial at the time. It is easy; it should only mean the expenditure of one piece of paper, and it will tell us more than the actual exposure necessary.

To do this the printing frame is held at a distance of six inches from the gas burner. If the frame has a piece of wood tacked on to one edge of it, so as to stick out in front, the wood may be cut to such a length that when it is placed against a certain part of the gas burner the frame is six inches from the flame. This will be found a great help toward securing accurate exposures, as when the frame is so near to the light a very little difference in the distance—say only an inch each way—makes a very great difference in the light. A print exposed five inches away receives more than twice the light which reaches one seven inches away. Holding the frame at six inches distance, therefore, we give the whole of the negative an exposure of fifteen seconds. As soon as that time is elapsed we cover a narrow strip along one edge of it with a piece of card, and continue the exposure until thirty seconds altogether have elapsed. A further strip of the negative is covered. At the lapse of one minute another strip is covered, a fresh one at the end of two minutes, and one more at the end of four. It will be seen that as a result of this we have a print the different parts of which have received, respectively, fifteen, thirty, sixty, one hundred and twenty, and two hundred and forty seconds' exposure.

These figures are for ordinary, not "portrait," gaslight papers, exposed to an ordinary gas burner, or to a good paraffin lamp without a globe. If an incandescent gas burner is used, the distance should be increased to twelve inches, or else the exposures should be made four, eight, sixteen, thirty-two, and sixty-four seconds.

Placing the trial print face upward in a clean dry dish in the shade of the card, the developer is poured quickly over it. No more developer need be used than will cover it easily and quickly, but if any part remains uncovered for a few seconds, it will of a surety make a mark that will be clearly visible on the finished print.

Almost immediately the developer reaches the print signs of the picture will begin to appear, and in less than one-half minute it will look as if fully developed. When the action seems to be stopping, the developer is poured off, the print rinsed for a moment, and then placed in the hypo, pushed well underneath the surface, and after it has remained there for a few seconds is turned over and left face downward for five minutes. It is then fixed, although the instructions, to be on the safe side, generally speak of ten or fifteen minutes in the hypo.

When the print is fixed it may be taken out and examined close to the light. It will probably be found that one or more of the strips which received the least exposure are almost white paper, just the heaviest shadows showing and these not very deeply. At the other end will be found most likely a strip which is very dark and heavy all over from overexposure. Between the two will be a strip nearly, if not quite, what we should like the whole print to be. The exposure of that strip is to be our guide for the next exposure. We shall, perhaps, find that the negative wants a little more or a little less than that strip

received in order to get the best effect; but this can be gauged by looking at the trial print. We can then make a second exposure when, if all has gone well, we shall get our first successful gaslight print.

It is best to rinse the print between development and fixing, but only for a moment; and it must not be done in any stronger light than was used for the development.

The prints must be kept moving in the fixing bath; and it is a very bad plan to let them accumulate there until a batch is ready for washing. The time prescribed by the maker for fixing should not be greatly exceeded, and the prints should then be given one or two changes of water. If preferred they may then be put in a dish of water to wait until the whole batch is finished and ready for washing. Prolonged soaking in the fixing bath is very likely to stain them, and in some cases has a decided reducing action.

To wash a few prints quickly, two dishes or basins form a very convenient arrangement. The prints are taken from one to the other, two at a time, holding one print in each hand and allowing it to drain thoroughly before putting it in the clean water. When a basin is emptied of prints the water is poured away, the basin well rinsed, and filled with clean water. The prints are then transferred back to it in the same way. If this is done seven or eight times, taking not less than one-half hour over the whole of the changes, they may be regarded as properly washed.

This article has been intentionally kept of a very elementary character, and need not be burdened with details of other methods of development, exposing, etc. Nor need it be prolonged with cautions which, if the procedure described is strictly followed, will not be necessary. But one word of advice to old and new workers of the process may be added. If good prints of a fine color are wanted, the development must be full—that is to say, no attempt must be made to take the print out of the developer as soon as the action seems to have gone far enough, as is done when developing a negative. The action must be allowed to go on until it perceptibly slows down, and if this gives us too dark a print the exposure must be shortened. If, instead of shortening the exposure when the print is too dark, the development is shortened, a flat gray poor print will result.—*Photography and Focus.*

## PERSONALITY AND THE CAMERA.

THE old question concerning the photographer's title to a place beside the painter and the limner is taken up as usual in the current number of Mr. Alfred Stieglitz's admirable quarterly, *Camera Work.* The pleader on this occasion is Mr. Frederick H. Evans, a very notable photographer, and we judge by the tone of his argument that he has not much patience with those who look upon the camera as an instrument of limited powers, or have any doubts of its capabilities as a medium of expression. They are called critics of a "vague sort" and put in the class of "the unwise," and that not because they think photography has no right to any consideration as an art, but simply because they dare to say "it can never hope to attain a very high place."

The reason why they say so, as Mr.

Evans explains, is because "its sense of personality, its obedience to individuality, is so limited." But this is not so according to Mr. Evans. The camera is not by any means so mechanical as people think; if it were it would be possible to produce the same picture twice. "Yet, curiously enough," he observes, "this is just one of the most difficult things a photographer can be set to do, to exactly repeat himself or another." By way of illustration he tells how he tried to reproduce an architectural study of his and failed to secure the desired effect. The effect on the second occasion was good, but "totally different." He explains that "the increase in size of apparatus and focus of lens made the position of the camera so different as to prevent an exact repeating of the composition." The light also was troublesome; "the two previous efforts had been made, as was this, in full summer, with a continuous blaze of sun; but the direction of the sun's rays from the different month, or week, or day, made a repetition of the previous light effect quite impossible, though it was studied and watched for at all hours."

Mr. Evans' conclusion seems to be that the camera is mechanical only in the same sense as the piano, and that the result all depends on the player. How he comes to this conclusion we do not know. The example he gives from his own experience only goes to show how helpless the photographer is, how wonderfully dependent upon the occasion and upon the instrument in his hands. Indeed, we are left with the impression of an artist obliged to trust largely to luck and doubtful to the very last of what the result will be. "Since then I have been able to repeat the subject . . . but *it came* with a totally different effect of lighting." It came! This is hardly what we would call "obedience to individuality."—*New York Evening Sun.*

## AUTOCHROME LANTERN SLIDES.

It is unfortunate, writes Ernest Marriage, in *The Amateur Photographer and Photographic News*, that we seem no nearer to the successful reproduction of colored illustrations on paper from autochromes or other screen-plate transparencies. Were it as simple to work from an autochrome as from a painting, the possibilities within reach of the photographic illustrator would be greatly widened; but until this is the case the most practical form for color transparencies to take is the lantern slide.

The intensification of autochromes, though recommended by the makers, and usually practised, is, in most cases, detrimental. Intensification makes the colors more vivid, but increases the density to an objectionable extent. If the transparency is to be shown by the lantern, in nine cases out of ten it is a mistake to intensify it. It should be quite practicable to project a three-foot picture upon a screen with a blow-through jet; and intensification very generally makes a slide too opaque to stand this test.

### *Density and Color.*

It has been too readily assumed that autochromes are too opaque for the lantern unless a strong illuminant, such as a powerful arc light, is used, whereas, with a moderate-sized picture limelight is available. Novices are pleased with the bright colors which can be obtained by excessive intensification, and fall back

on high illuminants to grapple with the opacity of their slides.

The added density may not be material if the plate is solely intended for viewing by daylight; but even then color contrast can be obtained without glaring color. The painter does not necessarily use vivid color to represent brilliant tints in Nature, nor need the photographer.

Pictures three feet square are not too small for a small show at home, and autochromes are better viewed in this way than when looked at in the hand. A distempered wall makes an ideal screen for these, as well as for ordinary lantern slides, and it need not be white; in fact, for color slides it is better light blue. When choosing the colors for the walls of our rooms, I maintained that one of the sitting-rooms should be white, but finally accepted "cream" as a compromise. The slight tint makes no perceptible difference in the color of ordinary slides, and my lantern screen is always ready, always perfectly flat.

### *The Light and Screen.*

Limelight is, however, deficient in blue rays, and this must be corrected if autochromes are to be shown with the best effect. This may be done by using a very pale blue screen in the lantern, or by projecting the autochrome transparencies onto a blue screen.

I have found distempers with the trade names "sky blue" or "light blue" answer admirably. Without some correction the blues in an autochrome do not get due justice done them by limelight. I have a slide of a host of bluebells in a wood; on the screen the flowers are hardly visible. Greens, too, in some cases noticeably lose their value.

Limelight is so much more generally used than the electric arc in lanterns that it would seem worth while to cater specifically for the former. Why should not the makers supply a compensating screen which would pass more blue rays than one which gives correct results for viewing by daylight? This would cut down exposures to some extent, and would enable the lanternist to get the maximum power of the limelight, which, of course, is not obtained if the illuminant is robbed of some of its rays other than blue, by the means suggested in the previous paragraph.

### *Making Autochrome Slides.*

Let us consider now the making of the transparency or slide. There is no need to dwell upon the question of exposure. I generally give about twenty-five times as long as the same subject would receive upon an ordinary plate. Many people would regulate the focal length of the lens according to the size of the plate, and regard a six-inch lens as amply long enough for a $3\frac{1}{4} \times 3\frac{1}{4}$. I have never used shorter than an eight-inch lens, and much prefer the results obtained with an equivalent focus of sixteen inches or more. Sky or clouds seldom come out satisfactorily in an autochrome; it is no easier to get sky and foreground than on an ordinary plate—harder in fact. With a long focus lens little or no sky need be included, and there is not the trouble with objects of exaggerated size and importance in the foreground as happens when a short focus lens is used and the front is lowered to get quit of the sky.

### *Lenses.*

It is possible to combine the long focus and big aperture with diffusion in addition by employing rapid telephoto lenses. I most frequently use an 8-inch Dallmeyer 2B patent portrait lens (nearly always at its full aperture of $f/3.16$, and with at least four turns on the back cell to increase the diffusion of focus),

combined with a 5-inch negative attachment.

This is a cumbersome tool for such small plates, but it gives much more pictorial results than smaller and lighter anastigmat lenses.

With such expensive plates few photographers care to run the risk of experiments. No doubt most folks adhere rigidly to the maker's formulas, if, indeed, they do not buy the set of solutions ready made. Adopting the advice of a friend I avoided alcohol in the first developer, using dry pyrogallol, mixed as wanted.

### *Developers and Developing.*

The following formula is practically the same as published in the instructions:

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| Pyrogallol . . . . . | 6 grains. |
| Bromide of potash (10 per cent. solution) . . . . . | 1 dram. |
| Water to . . . . . | 2 ounces. |
| Ammonia (10 per cent. solution, *i. e.*, ammonia, 0.880, 1 ounce; water to 10 ounces) . . . | 4 dr. 15 m. |
| Water to . . . . . | 2 ounces. |

Mix the two together just before developing the plate. Develop for two and one-half to three minutes.

Another developer which answers well is rodinal. Take rodinal 1 part, water to 10 parts, and develop for four minutes. Rodinal has the advantage that the same solution can be used for the second development (after reversal) and the disadvantage of greater liability to frilling.

The danger of frilling is reduced if the plate is dried after rinsing from the reversing bath, and the second development deferred accordingly. I have only once been seriously bothered with frilling, and it was the only time that I have used soft water for making up the solutions. As a remedy, I tried a weak solution of formalin after the reversing bath, but this did more harm than good. Rodinal with hard water has given me no trouble, so perhaps the blame ought to fall upon the soft water rather than this developer.

For the second development after pyro, any regular amidol developer is suitable, or rodinal may be used if preferred. The plate is then washed and dried without further fixation. If the exposure and development have been correct, intensification is needless, and without silver intensification there is no need for the hypo fixing bath.

If this development is done by artificial light it may be desirable to burn a little magnesium ribbon near the plate, though it is generally sufficient to hold the dish containing the plate and developer near an ordinary gas jet. This development being completed, the plate is washed for a minute or two and then dried, when, if the slide is satisfactory, a coat of celluloid varnish completes the process.

### *Reduction.*

If the slide is too dark it may sometimes be improved with a weak Howard-Farmer reducer (care must be exercised that the action is not taken too far), after which it is probable intensification by the ordinary prescribed method will be beneficial.

Local reduction may be effected with "Globe" metal polish and wash leather, but rubbing away the image from the ribbed lines, which generally are visible on these plates, must be avoided. Apart from the reduction due to actual removal of silver by this method there is, I think, some gain in transparency, the result of polishing the surface of the film. Reduction by means of ammonium persulphate is not to be recommended; color contrast is reduced as well as range of light and shade.

### *Intensification.*

If an undoctored slide requires intensification, it is a sign of overexposure, or

overdevelopment, before reversal. A mercury intensifier may be substituted for the silver and pyro method. The plate is bleached in a saturated solution of mercury bichloride, to which a trace of hydrochloric acid has been added; it is then rinsed twice or three times in weak hydrochloric acid (1 part in 60 water), and washed.

The redeveloper should be one which gives a black image; amidol answers well. This intensifier, while less troublesome, is not controllable; the increase of density cannot be watched and stopped at any point as when silver and pyro are employed.

No appreciable gain in transparency is obtained by cementing the color record to its cover-glass.

It is a messy job, and the Canada balsam may permeate the film and markings result.

## THE PLAYERTYPE PROCESS.

[In response to many requests for a method of copying without camera or lens, we reprint from *Photographic Mosaics* a brief account of the process discovered by Player and named after him.—Ed. W. P. M.]

Suppose the object to be copied is a pencil drawing mounted on a sheet of card. First lay on the table some solid firm object having a flat surface—*i. e.*, sheet of metal, drawing board, plate glass. Next comes the mounted drawing, card downward, drawing face upward. Then a piece of slow bromide paper. This is placed film downward so that the film is in contact with the pencil drawing. On the back of the bromide paper is laid a stout sheet of glass, so as to press the bromide paper into good and even contact with the drawing. If the drawing is on a curly or stiff mount, two or more sheets of glass may be required to keep all flat. On the top of the clear glass is placed a sheet of "pot metal photographic green glass." Now, at a distance of about fifteen to eighteen inches over the middle of the pile, is arranged a No. 5 Heron's gas-burner. The exposure is about five to ten minutes. Thus, the light from the gas passes through the green glass, the sheet of plate glass, the bromide paper, the film, and on to the surface of the drawing. On development the parts of the sensitive film in contact with the white paper of the drawing develop black, while the parts in contact with the black marks of the drawing are left white. Thus, from the positive (drawing) we get a contact negative. This is developed, fixed, washed, and dried in the usual way, and from it by contact a copy positive is made.

The developer used by Mr. Player is:

| | |
|---|---|
| Hydroquinone . . . . . | 2 grains. |
| Soda sulphite . . . . . | 4 grains. |
| Potassium hydrate . . . . | 2½ grains. |
| Potassium bromide . . . | 2 grains. |
| Water . . . . . | 1 ounce. |

If green glass cannot be obtained, results as good, if not better, can be obtained by using five or six sheets of green gelatine, such as is used for making Christmas crackers (favors).

In case of copying anything on paper with printed matter on the other side, it is advisable to place a sheet of black paper at the back to give a uniform black background.

By Gay Studio, Fall River, Mass.

By H. H. Lattan, Chicago, Ills.

By H. H. Lattan, Chicago, Ills.

By C. F. Emeny, Sudbury, England

By C. F. Emeny, Sudbury, England

1. "Coming from the Barber"
By H. Hall

2. "A Pastorale"
By Louis Fleckenstein

3. "The Vase"
By H. Hall

4. Portrait Group
By H. H. Pierce

*Illustrating Sidney Allan's Article*

5. Portrait
By Adelaide Hanscome

6. Portrait
By M. B. Parkinson

7. Portrait
By Mishkin Studio

8. Portrait Group
By H. H. Pierce

*Illustrating Sidney Allan's Article*

Home Portraiture

9. By Franz Grainer
10. By M. u. T. Bernoulli
11. By Wm. Kübeler
12. By M. Weil

*Illustrating Sidney Allan's Article*

# COMPOSITION IN CHILD PHOTOGRAPHY.

BY SIDNEY ALLAN.

CHILD photography is one of the most popular branches of professional portraiture. There are many adults who wend their way but once or twice in a lifetime to the photographer's studio, but comparatively few parents can resist the temptation of having their children portrayed as often as the pocketbook permits it.

Parents, as a rule, have a weakness to record the growth and development of their offspring. It is such a pleasant occupation to look them over in after years and to study with gentle surprise the changes that time and conditions have produced in the features and general appearance of the little ones, and how differently, in many respects, they have turned out from what one expected when they were still "mewling and puking in the nurse's arms." Amateur photography has made a big inroad into this particular branch of professional portraiture. It is so easy to take a snap shot, and no matter how badly the result may turn out it will always prove of interest to those who are immediately concerned with it. The amateur picture generally has something which is lacking in the studio print—a certain intimate flavor and naturalness which is sure to exercise a special charm upon parents and relatives and all those who are familiar with the individual ways of the child portrayed. The professional photographer cannot compete with this quality, even if he indulges in home portraiture. It is beyond his reach.

Look, for instance, at the accompanying picture. It represents three of my children: one sleeping and the other two merely pretending. I saw them making this charming little composition and snapped it. This picture, unpretentious, solely taken as a record on a vacation day, is to me in many ways more satisfactory than the most elaborate group any professional could take. And I believe most parents will agree with me. The picture means something to me, and the likenesses of the three

little ones are fairly good. This is the irresistible charm of amateur photography, and I believe the majority of photographers recognize its power, and would be more or less inclined to compete with it in their studio work—if they were allowed to do so.

But, strange to say, whenever parents take their children to a studio, they want something different. Few customers would be satisfied to accept pictures as Figs. 1 and 2 of a professional. They would turn up their noses and shrug their shoulders at such products. The trouble is that they do not want to pay for something which they might possibly do themselves. They vastly prefer pictures like Figs. 5, 6, 7, and 8. They are more typical as likenesses, and more dignified looking.

Thus the professional is really forced to photograph children very much the same way as he does adults. Of course, the scope is wider. There is much more chance for arrangement and composition. A child can be taken almost in any kind of position. In one of my previous discussions I have pointed out how restricted the photographer generally is in the management of legs and feet. A little boy you can put most unceremoniously on the floor, give him some playthings, and make your exposure. But never forget that this unceremonious treatment demands greater, or at least a more specialized, knowledge of composition. The simple bust portrait, and the stereotype standing and sitting positions are after all the most reliable from a money-making point of view. We are a conservative nation in all matters pertaining to taste and art. And if the mother does cross the child's legs and smooth down its frock, and pull its bow around to the side nearest to the camera, the photographer had better dispense with his own ideas and take the bow and crossed legs if he wants to get an order, for children have been taken in that position since immemorial days. I, for my part, could never understand why it should be considered the correct thing for little boys and girls to sit still in a chair or on a skin rug, or to lean against a table with crossed legs, when they never do such a thing in life.

The tendency is luckily for an increased naturalness in the posing. In home portraiture the parents of the young sitters are apt to let the photographer do what he likes with their children. Figs. 9, 10, 11, and 12 are all examples of this method. Fig. 9 strikes me as being a trifle too elaborate. In my opinion nothing is gained by making the portrayed portions mere figures in an interior. In this case the arrangement is exceedingly well managed, but the rug, the armchair, the screen, and the portrait on the wall furnish almost as important features as the faces of the sitters. Fig. 10 is excellent as a specimen of infant photography, and a large step in advance of the stereotyped baby pictures we are accustomed to see. It is a picture of the baby, and the mother's face is subordinated accordingly. The distribution of black and white against the middle tint background is a clever piece of space arrangement. Fig. 11 shows two girls playing checkers. It is quite logical to present children engaged in some game, but it is apt to injure the natural expression. The expression becomes specialized, more accidental, and for that reason less typical, and it is, after all, the typical expression which the public demands. For the same reason compositions like Figs. 2 and 3 ought to be avoided. Mathilde Weil's charming composition is too much like an amateur picture, in the best sense of the word, however. It has pictorial pretensions, and fulfils them. But it is not portraiture. And Fig. 3 is too close an approach to the

blurred tonal effects of the Secessionists, which render portraiture impossible. The only mistake Mr. Hall made is that he put a piece of pottery into the hands of his little boy instead of a crystal ball. The Secessionists do not yet approve of pottery; only brass pans, crystal balls, and statuary pass muster in the higher art circles.

There is one technical peculiarity which should really regulate all efforts in this direction, and furnish the fundamental basis to work upon. And this is really in the nature of a deficiency, namely, that the light in the ordinary studio is seldom good enough for very brief exposures, which would be the ideal condition for the fleeting expressions of a child's face.

For that reason, and solely for that reason, all attempts at depicting animated expression, motion, and vivacity (as occur so often in the life of children) should be left to outdoor and amateur photography. Indoor photography, whether studio or home exposure, must content itself with dignified compositions and the getting of likenesses, a composite expression of all the various expressions that might interest in the faces of our little ones. Henry Havelock Pierce seems to pursue that golden middle way. Fig. 8 is a trifle stiff, but Fig. 4 (as are Figs. 5 and 10) is a capital example of what I consider good child portraiture. Pierce somehow always gets the hands too dark, but that is a different matter. The principal thing, the likeness of the little one, is there, a pleasant, natural, and no doubt typical expression, and the composition is simple and in good taste.

## LARGE VERSUS SMALL SIZES—A BUSINESS QUESTION.

Of late years there seems to us to have been a tendency among middle-class photographers to cultivate business in the wrong direction, namely, by giving prominence to portraits of small size—postcards, midgets, and the like—at cutting prices, instead of working in the opposite direction—giving greater importance to pictures of larger dimensions, such as boudoirs, imperials, panels, etc., at a modest price. This is the more surprising, seeing that a single picture of these sizes carries as much or more profit to the photographer than do, perhaps, several dozens of the smallest sizes, of which such large numbers are now being done. Moreover, the larger sizes, if a good display of them were made, would decidedly improve the status of the business, while the prominence given the small sizes tends to lower it in the eyes of the general public. On mentioning this to a middle-class man, who is doing a fair business, the other day, he told us there was no demand for the larger sizes at the present time. It occurred to us that the "no demand" was to a great extent brought about by photographers themselves, by reason of there being no supply prominently shown; photographers, as a rule, do not make a feature of anything but small direct portraits, and of enlargements, mostly of the common—we might almost say orthodox—20 by 16 size, which they can get done at a very cheap rate.

What seems desirable to us is to make a specialty of moderately large portraits, such as boudoirs, imperials, and panels. With regard to there being no demand for these pictures, it may be asked how many middle-class portraitists could at the present time show a decent number of specimens in these sizes if they were asked for them? Are the general public

likely to inquire for things they may possibly know nothing whatever about? If a good display of them were made, as is often done of postcards and midgets by many photographers, there is little doubt that a demand would be created for this class of work, if only to a limited extent at first.

There is no question that large portraits, up to a certain size, taken direct, have a certain quality about them that is not possessed by enlargements of similar size. It goes without saying that to take portraits, say, of the panel size, about 12 by 7, and the large panel, about 15 by 10, requires somewhat costly apparatus; that is, if portrait lenses are used for the purpose. But with the present extra rapid plates such lenses are not absolutely necessary. There are few professional photographers who do not possess a 12 by 10 or a 15 by 12 camera, furnished with a rapid rectilinear lens, for outdoor work. Either of these may well be utilized in the studio for large portraits. It is true that the lenses will be slower than portrait combinations, but in practice they are not so much so as many may imagine. A large portrait lens of wide aperture has to be stopped down to some extent in order to get the different planes of the subject in sufficiently sharp focus—sometimes even to $f/8$—in which case it is no more rapid than is a R.R. worked with its full aperture, and it will not have any greater depth of focus than will the latter, with its full opening. Hence it will be seen that there is no great obstacle in the way of any photographer doing moderately large direct portraits.

In taking the pictures we would suggest that large heads be avoided, unless lenses of much longer focus be employed than are catalogued to cover the size plates just referred to. The reason for this is that large heads, when taken with the camera within a few feet of the sitter, are rarely satisfactory, by reason of the violence of the perspective — otherwise distortion — whatever form of lens be used. Full length or three-quarter length standing will, as a rule, prove the most satisfactory. For the boudoir size any whole plate or cabinet lens of eleven or twelve inches focus will answer. Having got the negative, prints can, of course, be supplied at a moderately cheap rate, and yet carry a good profit.

It was mentioned just now that there is a certain quality in a direct portrait that is not possessed by an enlargement, but that may possibly require some little qualification, because by adopting a certain system there will be but little difference between the two; sometimes even there is a superiority in favor of the enlargement. But there is a way of making enlargements of moderate size that look very like direct pictures, and many years ago it was vended as a secret process for a substantial sum. The method is as follows: Instead of making the enlargement on bromide paper, it is made as a transparency on a dry plate the full size desired. From that transparency a negative is made by contact printing on another dry plate. From that prints can be taken by any process. The advantage of this system of working, over that of first making a transparency the size of the original, is that any defects pertaining to that would be magnified in the enlarging, although they were not in the original negative. A further advantage of this method is that the enlarged transparency can be readily retouched, as the effect of the work will be seen exactly as it will be in the finished picture. For instance, the eyes or any part of the picture that may be a little out of focus in the original can be sharpened up, delicate shadows put in, and deep ones strengthened. In fact, any finishing that might be required on each individual print

can be done, once for all, on the enlarged transparency. It may be argued that this way of working is more costly than the other, inasmuch as two large plates have to be employed instead of one. But this is not a matter of serious import when the best possible results are the principal consideration. If the transparency is made of a pleasing color, and not too dense, it may, after it has served its purpose, be backed up with ground glass and used as a window decoration in the reception room, in which event possibly it may be purchased by the sitter for a small sum, which will amply repay for the cost of using the plate.

The object of this article is really to suggest to middle-class photographers, who are complaining of bad businnes at the present time, that they might in the end find it more advantageous to cultivate a taste among their customers for portraits of a larger size than they are at present doing, but not necessarily of the commonplace, often badly made bromide enlargements so much in evidence. If the same prominence as is now given to a number of little pictures were given to those of moderate size, it would certainly tend to raise the status of the establishment, even if it did not for the moment bring more business to it.—*British Journal of Photography.*

## LUMIÈRE NON-INFLAMMABLE FILM.

On Tuesday morning, December 8, an interested audience gathered at the Holborn Restaurant, London, to witness the eagerly expected demonstration of the new non-inflammable film manufactured by the Lumière North American Company. Among those present were several gentlemen closely interested in the question of securing the public from the danger of fire at living picture exhibitions; the majority of the leading makers were represented, and a number of the leading London showmen and exhibitors were also present.

Mr. T. K. Grant, London Manager of the Lumière North American Company, introduced the new film to the notice of those present in an admirable speech, remarking at the outset that the firm had been studying the question for a long time past, and that in producing a non-inflammable film they were doing away with the dangers which had hitherto been regarded as part and parcel of cinematograph entertainments. These dangers had given rise to a number of regulations which were very irksome from the showman's point of view, although they were doubtless necessary. The speaker proceeded to point out that the danger of fire might arise in one of two different ways: There might be a fire owing to the film lighting while in position on the machine and setting fire to the spools of film; or, again, the fire might arise in quite another way. In most exhibitions an iron box was used, and the space being limited, and many operators unfortunately careless, the film might be left lying about and possibly catch alight. It had been suggested (said Mr. Grant) that a fire-extinguishing device on the machine would meet every possible case, but he contended that these devices would only deal with dangers of the first class and were of no value whatever in the second. The only method of preventing the latter, he suggested, was that the film itself should be sufficiently fire resistant not to catch alight.

Remarking that changes always meant difficulties, Mr. Grant pointed

out that in the event of a fire extinguishing device being made compulsory, thousands of machines would have to be altered and adapted. With non-inflammable film no new device would be necessary on the projector, and the only alteration in trade methods necessitated would be due to the fact that the film took longer to dry.

The audience was keenly interested in Mr. Grant's description of the nature of the new material, which he said was simply gelatine, and as delivered to the showman contained no celluloid whatever. In the original state of the film, the emulsion was coated on a celluloid base, as usual, and this remained during the operation of developing, fixing, toning, etc., and after the film was dry the gelatine was easily stripped from its support.

The speaker then dealt with certain objections which might be advanced against the use of gelatine. It would be asked, is the gelatine going to shrink or expand? This was the part of the process to which they had in particular applied their wits, and he claimed that the gelatine compared as favorably with celluloid as regards shrinkage as in other directions. It was generally agreed that an expansion or contraction to the extent of one perforation per hundred was negligible, and under strict tests the non-inflammable film had only altered to the extent of three holes per thousand instead of ten, which were allowable. Mr. Grant proceeded to say that it was remarked that the gelatine would be easily torn. He was sorry for the makers, but it was a fact that the film would wear longer than the ordinary material; they had one film which had been passed through a projector five times a day since the beginning of August which was in perfect condition and "still running."

Mr. Grant concluded his statement with a word of thanks to the Kinematograph Manufacturers' Association and other members of the trade for their assistance in arranging the demonstration, and after he had assured a gentleman in the audience that in the event of a breakage the film could be easily joined by means of a preparation similar to seccotine, the meeting turned its attention to a practical demonstration of the new film's qualities.

Several films were first run through to show that pictures of good quality could be secured, and this they certainly demonstrated to everybody's satisfaction. A representation of "Oh, Oh, Antonio," by the Warwick Cinephone, was also given, the new film being used for the cinematograph picture.

Afterward the film was allowed to become stationary in the gate and the light to play on it. The only result of this was that a blister gradually formed on the film, and if the light was allowed to remain a hole appeared. It was also shown that the film could be left in the path of the rays without effect for a longer period than the four seconds or so necessary to fire a celluloid film with a light of ordinary power.

Before the meeting dispersed several gentlemen were allowed to test the film for themselves in various ways without succeeding in producing any effect greater than that described.—*Kinematograph Weekly.*

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*Keeping Carbon Tissue.* According to Dr. Hauberisser, a well-known German authority, sensitized carbon tissue if kept in a vessel containing moist ammonia vapor will remain in good condition for weeks. If, instead of ammonia vapor, lumps of ammonium carbonate are placed in the vessel the tissue remains soluble in warm water, but it loses its sensitiveness to light. This can be restored, however, if it is pinned up in the dark room for a few hours.

# ON PORTRAIT LENSES.

BY ERNST GUNDLACH.

WHAT is the proper size of lens to be used for a given size or kind of portrait?

This question is by no means as simple nor as well settled as is generally supposed, and therefore a few hints given here, in answer to it, may be well received as new and useful.

Any size of picture can be made with any size of lens. A small lens of less than ten inches equivalent focus will produce a life-size head—providing its angle of field is not too small—by so placing the camera that the distance from the subject to the lens is equal to twice its focal length; and the largest lens is able to produce a microscopic portrait if only the distance from the camera to the subject is great enough. But there are very marked differences in the quality and character of pictures of a given size if made with a small lens or a large one. With a small lens —one of short focus—the distance of the subject from the optical centre of the lens is short, and therefore the curvature of the focal plane is short, and is more so the larger the required picture, so that the focussing at the marginal parts of the picture is difficult or impossible. Beside this, the image is formed in a wide angle, and the distortion of the lens, always increasing with the angle or the obliquity of the light rays, is great. Furthermore, the exaggeration of the perspective, which is in an inverse proportion to the equivalent focus of the lens, is great, and the depth of focus accordingly diminished. All these defects can be reduced to an imperceptible minimum if a lens of sufficiently large size and long focus is used in place of the small one, because the angle of field and, consequently, the obliquity of light forming the marginal parts of the picture will be greatly reduced and the focal plane nearly flat, and there will be no exaggeration of perspective perceptible. From this would follow, as a general rule, that for any size or kind of picture the larger the lens used the better the quality of the picture will be; or, in other words, the largest lens must, under all circumstances, produce the best picture, no matter how small the latter is required to be. For instance, a "cabinet" portrait made with a lens of five inches equivalent focus and a stop of $f/10$, compared with one made with a lens of forty inches focus and a stop of $f/10$, both of the same subject, the same time of exposure, and all other conditions the same, must necessarily be much inferior to the latter, because of the focal distortion of the marginal parts; the curvature of the focal plane, and the perspective exaggeration are, in the larger lens, reduced to about one-eighth of that of the smaller lens. This would, indeed, be perfectly true if the above-mentioned defects or optical errors were the only ones of the photographic lens. But, unfortunately, there are some unavoidable errors of purely an optical nature, even with the best lens, which are, in their relation to the focal length of the lens, just contrary to those mentioned above; that is, they increase with the focal length of the lens, while the former are diminishing. The errors are so called secondary spectrum and the spherical and chromatic aberrations of second order; and it is, as will soon be shown, of special practical importance to every portrait photographer to be familiar with the nature of the said defects, in order to avoid in every special case their injurious influence becoming

too great, and to clearly understand the real cause of certain defects of a picture.

The secondary spectrum, as well as the aberrations of second order, are certain small remnants of the primary aberrations left uncorrected—even when the combination of crown and flint glasses and the curvatures of the lenses are such as to form the best achromatic and aplanatic objective—and consist of a very small spot or disk of light concentrical with the true focal point, to which a pencil of light is concentrated after passing through the lens. The smaller the disk the less its disturbing influence to sharp definition. The disk may be regarded as the base of a cone of a certain angle, with its apex at the optical centre of the lens. The longer the focus of the lens—or, better, the larger the cone, its angle remaining unchanged—the larger the disk will be, and, consequently, the greater its injurious influence to sharp definition.

In the case of portraiture the distance of the picture from the optical centre of the lens is generally much longer than its equivalent focus, and may be, strictly speaking, of any length exceeding that of the focus. For life-size portraits it has to be just twice the focal length, while for very small pictures it will be but little longer than the real focus. Therefore, a lens which seems to cut perfectly sharp when the picture is small may fail to do so when a large picture is made by it, because the above-described disk of aberration is larger also, and, consequently, the injurious effect of the secondary spectrum and the secondary aberrations are greater on the large picture than on the small one, just as much as its distance from the lens is longer.

It will now be understood that the sharpness of definition in the picture is not dependent on the optical quality of the lens alone, but also in a great measure on the size of the lens and that of the picture made with it, because of the distance between the lens and the picture varying with the sizes of both. In other words, the power of definition of a lens varies with the size of a picture to be made with it, and is the greater the smaller the lens is. The distance of the subject from the lens has no direct influence upon the definition in the picture and no general rule can, therefore, be fixed regarding its relation to the same. But the distance between the picture and the lens is a direct measure of the degree of sharpness in the picture, so far as this is dependent upon the secondary spectrum and aberrations of second order.

We are now ready to answer the question: "What is the proper size of lens to be used for a given size or kind of picture?" by stating that a lens of so large a size and focal length—and not any smaller—as will produce only just sufficient sharpness in the picture may be regarded as the proper one in the case, because the definition of detail or rather the lack of such, will, by this lens, be brought into the most favorable balance with the now greatly reduced defects caused by secondary spectrum and the secondary aberrations, and—provided the lens be of good quality—none of all the defects will be perceptible to the eye, and, consequently, the picture will appear to be perfect in every respect. But if the lens is smaller than required, as above, the increased sharpness—more than is absolutely necessary—is attained at the expense of correct perspective, depth of focus, and flatness of the focal plane; and at the same time the increased distortion at the marginal parts will more or less counterbalance the increased sharpness of the central part of the picture. On the other hand, if the lens is too large for the size of the picture, lack of sharpness will condemn the latter, whatever virtues it may otherwise have.

## CANADA AS A FIELD FOR PHOTOGRAPHERS.

[On a recent visit East, Dundas Todd, late editor of the *Photo Beacon*, Chicago, and now resident in British Columbia, remarked upon the exodus of farmers from the United States into the Canadian Northwest. The following interesting account of photographic possibilities, from the *British Journal Almanac*, written specially for English readers, will nevertheless be of interest to photographers south of the Canadian line.—Ed. W. P. M.]

A great deal has been said and written of the vast extent of the Dominion of Canada. As the literature issued by its government and railways goes into this fully, it will not be necessary to describe it. One or two facts, however, should be kept in mind. Canada is a land of great distances. It requires about a week to traverse it by express train, and it has almost as great a variety of climate as Europe. To give an idea of its resources and possibilities it will be best to deal with the country in sections.

The maritime provinces, Nova Scotia, Prince Edward Island, and New Brunswick, have not attracted so much attention from newcomers as have the provinces of the west, yet they have made steady progress. In addition to their fisheries, lumbering, and shipping, the growth of iron and steel industries, and the development of coal fields, are perhaps the more recent outstanding features of their progress. Some parts are attracting an increasing number of summer tourists, notably the Annapolis Valley in Nova Scotia, the most famous apple orchard country in Canada, and known to tourists as "the land of Evangeline." In Nova Scotia the principal city is Halifax, the capital, with a population of 40,000. It is a seaport open all the year, and the winter port for the Canadian mail steamers. It is a thorough English city, and regarded by western Canadians as being somewhat sleepy. Sydney, where the great steel and coal industries are centred, has a population of 9000.

In New Brunswick, St. John (40,000 population) is the largest business place, being the winter port of the steamers of the Canadian Pacific Railway, and where they have built extensive docks. The city has every prospect of substantial growth. Fredericton, the capital, with a population of 7000, and Moncton (9000) are the other important places.

The province of Quebec, being almost wholly occupied by French-speaking people, who are perhaps less aggressive than the English of the other provinces, offers very few attractions as a place of settlement for the Anglo-Saxon from over the seas. Quebec, the capital of the province, is considered the most picturesque and quaint city in America. It attracts a great number of tourists, who sometimes come in such numbers as to exceed the large hotel accommodation. It is the summer port of several transatlantic lines of steamships, and has recently experienced a revival of business and growth. Less than a quarter of its population of 70,000 are English-speaking people.

Montreal, some 200 miles farther up the river St. Lawrence, is the metropolis of Canada. It has a population of nearly 400,000, of which about two-thirds are French. Though a university city, with many English and French colleges, it has more and larger manufacturing industries and a greater amount of shipping than any city in Canada. The head offices of the two great railway systems are situated here, and each

maintains a fully equipped photographic department. Some of the large manufacturing plants employ a photographer for their work exclusively.

*Central and Western Canada.*

It is in the central and western parts of Canada, however, that the greatest progress and development is taking place, and to these provinces the greatest attention is attracted. The southern part of Ontario has been well settled for many years, and the majority of farms have substantial buildings and highly cultivated fields. Many of these homesteads have been in possession of their owners for several generations. The cities and towns are of considerable size, and in many there are manufactories of various kinds, whose products are sent all over the Dominion, or exported.

Ontario at present is the chief manufacturing province; its capital, Toronto, is a city of 300,000 population, almost wholly English-speaking. It has a large university and many colleges, there being 5000 students in attendance. There are many and extensive manufactories. The latest directory of the city showed sixty-three photographic establishments. Most of these are one-man studios, the proprietor doing all the operating and employing one or more assistants.

The other principal cities are: London, population 35,000; Hamilton, 55,000; Ottawa, the capital of the Dominion, population 70,000, partly French; and Kingston, 25,000, the conditions being somewhat like Toronto on a smaller scale. Hamilton, perhaps, has more industrial concerns than the others.

The northern and western part of the province, usually termed New Ontario, is largely undeveloped. Great interest at present centres in the extensive and valuable minerals recently discovered. Cobalt silver ore of marvellous richness has attracted the world's attention. This region is about eleven hours' railway journey from Toronto. Already the more adventurous photographer has been "cleaning up" good money there. North of this large areas of good farming land are being opened up by the building of railways. To the west of this territory is a wild and rough country, much of it mineral-bearing and largely forest-covered. All this north country has long rigorous winters, but bright warm summers that attract great numbers of people from older Ontario and the United States.

At the head of the Great Lakes are the twin cities of Port Arthur and Fort William. They will eventually form a large city, for all the lake traffic to and from the great West begins and ends here. It has large terminal facilities for three railways, among these being some of the largest grain elevators in the world. At present the photographic possibilities have been largely discounted, and competition is keen. Back of these cities and to the west large lumbering and mining operations are being carried on, Kenora, a thriving place, being their centre and the most western town of prominence in Ontario.

*The Wheat-growing Districts.*

Manitoba is the first of the prairie provinces, and the beginning of the great wheat-growing lands that stretch through to the Rocky Mountains. Its capital, Winnipeg, is the first city of Western Canada, the growth and progress of which has been so rapid, and yet substantial, as to be nothing short of marvellous. Its citizens are very much impressed with the achievement, and no comparison or eulogy, however flattering, is received by them with other than the utmost complacency. There is a great amount of business done; every year sees an increasing number of manu-

facturing industries established. The city has many nationalities among its inhabitants, but the English-speaking races are very largely in the majority. Its population has nearly trebled in the last five years, and is now somewhere about 125,000. There were about twenty photographic studios in the city in 1907. The Province of Manitoba is fairly well settled, and many thriving towns are located on its extensive network of railways, Portage la Prairie (5000) and Brandon (11,000) being the most important.

Two new provinces (Saskatchewan and Alberta) lie between Manitoba and the Rocky Mountains. The first in the westward journey is Saskatchewan, with an area of nearly 230,000 square miles, being 700 miles from south to north, and over 400 from east to west. Wheat growing, ranching, mixed farming, and lumbering in the north, are the special industries of the province. The principal towns are Regina (7000), the capital, Moose Jaw (7000), Prince Albert (4000), Saskatoon (2500). There are a number of lines of railway under construction, and new towns are springing up continually. Alberta has even greater area than its sister province, containing over 280,000 square miles. It has, perhaps, the greatest possibilities of the western provinces, having a great variety of natural resources. In addition to wheat growing, cattle raising, mixed farming, and great lumbering possibilities, it has rich mineral deposits, coal, gold, silver, and other minerals; oil and gas have been found in many districts. It has some good-sized towns, the most important being Calgarry (15,000), Edmonton (12,000), Strathcona (3500), and Medicine Hat (3500).

### *British Columbia.*

British Columbia marks the western limit of Canada. It is a mountainous country of great extent, with many fertile valleys, which are very favorable for all agricultural pursuits, fruit growing being, perhaps, the most interesting at present. It is the mineral wealth of the country that has attracted the most attention, gold, silver, lead, iron, and coal being found and mined in large quantities. At the coast the climate is mild and moist. Nearly every variety of climate can be found in this province, excepting, of course, that of tropical or semitropical nature. There have been many labor troubles, and at present the influx of Japanese and Hindoos is causing very serious concern, not only in the province, but in the rest of Canada. Their presence makes it difficult for a white man to obtain employment in the callings which do not require skill. In the fisheries, in the hotels and restaurants, the white men have nearly all been driven out by this cheaper labor. It is a country of wonderful resources, which are being developed in spite of these difficulties. There are, perhaps, more people of United States origin than in any other province, and their business methods and requirements are more akin to the States than Eastern Canada. Vancouver, population 50,000, and Victoria, the capital (25,000), are the two largest cities.

### *Canadian Railway Development.*

The railways of Canada are a very important factor in its life and development, and no account of the country, however brief, can very well omit some mention of them. The Canadian Pacific Railway, or the "C.P.R.," as everyone in Canada calls it, extends from the Atlantic to the Pacific, and with its many branches makes a system of over 9000 miles, the greatest mileage under one management in the world. It is the one transcontinental road at present, but there are under construction two other

systems—the National Transcontinental Railway, and the Canadian Northern—the former being built by the Government, and to be operated by the Grand Trunk Pacific Railway, which is closely identified with the present great system of the Grand Trunk. The latter has already in operation many links of its proposed line across the continent. All of these railways are extending their branches into new territory. There are two Government-owned railways—the Intercolonial, running from Halifax to Montreal, owned and operated by the Dominion Government; and a short railway into the cobalt mining region, owned and operated by the Government of the province of Ontario.

*Photographers' Opportunities.*

In all these western provinces there are, and will be, openings for photographers. Success will come to the man who grasps the conditions and understands the requirements of the people. The average grade of work—at least along the main line of the C.P.R.—is high, as good if not better than the average work in Toronto and Montreal. The plates, paper, mounts, are almost exclusively of Canadian (Eastern) or United States manufacture, the prevailing styles, if such a term can be applied to photographic work, are wholly American, and a man starting business without a knowledge of these special conditions would be seriously handicapped. It would be almost essential for a man intending to start business in any part of Canada to obtain a position in an established "gallery," as the photographic studios are called, learn the conditions, and at the same time be on the lookout for a desirable location by getting in touch with the travellers (travelling salesmen) of the stock houses, as the dealers in photographic materials are termed.

This advice will also apply to apparatus. A man can decide better when he is on the ground what lenses and cameras he will need than he can in anticipation, and when he is not wholly familiar with the conditions. Some of the equipment can be purchased for less money in Canada than it would cost to import from Britain, though most of the lenses used in Canada come from there.

*Qualifications for Berths in Canada.*

There are openings for portrait operators, printers, and commercial photographers in Canada, but the men must know their business, *but not too well.* Good men will have very little difficulty in getting placed. The general experience of Canadian photographers with British help has not been at all satisfactory, mainly because the greater number have been incompetent. They do not try to learn the methods of their employer, because "that is not the way they did it in England," and when given a free hand in printing and toning often turn out a batch of prints that are not fit to go out. As one photographer said to the writer, a certain batch referred to "looked as if an amateur had been trying his hand at it."

Most photographers in Canada, however long they have been at the business, are always ready to learn of and adopt a better way of doing the work, but the new hand should become proficient in his employer's methods, and then, if he knows he can improve on it, he will surely be given a chance to demonstrate the fact.

Perhaps the typical Canadian photographer in business is too cocksure, but if his new helper from over the sea is inclined that way he had better dissemble until he has "made good." The man who pays has, perhaps, some justification in wanting things done in the way he believes the best. In regard to wages in Central and Eastern Canada a printer

will get from $9 to $15 per week. A man who can operate, retouch, print, and finish if occasion requires it, is paid from $12 to $18 per week; some high-class portrait operators get from $15 to $25.

*Kinds of Work and Prices.*

In the better class of portrait work collodion paper with a "carbon" finish (Aristo-platino) is almost wholly used. It is toned with gold and platinum. However, the use of some superior grades of gaslight paper is increasing. Cheap work and commercial work is largely finished in a gelatine printing-out paper, though gaslight paper is often employed. The highest quality work, however, is printed in black or sepia platinum. Carbon is rarely used.

Prices for finished portraits vary very greatly. In Ontario, small sizes, less than c.d.v., will go as low as 50 cents per dozen in the low-priced galleries, while sizes around the quarter-plate run from 75 cents up to $2.50; while cabinets range from $1 up to $12 per dozen, $4, $5, and $6, however, being considered a good price for fairly good work, $7.50 up to $12 being obtained only by a few of the higher-class photographers who have made a reputation among the more fashionable element. For large work it is difficult to give a scale of prices.

In Manitoba and the West the prices for average work are nearly double what they are in Ontario, while wages are only about 25 per cent. higher. The sparser population and greater cost of material will, perhaps, not give the photographer a greater profit.

## PHOTOGRAPHY IN GREAT BRITAIN.

SOME very imposing figures in connection with the extent of Great Britain's photographic trade are given by *The Australian Photographic Journal.* While we are not prepared to vouch for the accuracy of the statistics quoted, our bright and enterprising overseas contemporary is usually well informed:

Few of us realize the immense importance of photography as an industry until confronted with the stubborn evidence of figures and facts. We so habitually look on the camera merely as a harmless form of amusement, or a means to perpetuate our smiling faces, that we are apt to attach but small importance to the more serious side of the matter. Possibly many would be inclined to doubt the statement that in the United Kingdom alone upward of 8000 cameras are sold per week, or at the rate of 400,000 per year, at prices ranging from $1.50 to $275; and the output is steadily increasing. It is estimated that about 2,000,000 people use the camera in Great Britain and Ireland alone. To meet the enormous demand we can readily understand it requires an army of workers skilled in the various departments that pertain to camera making and all its accessories. When we learn that the staid British people spend no less than $45,000,000 annually on the camera, as a business or pastime, we must certainly think that there is some reason in it, though "craze" is the usual term applied to popular approval in such matters.

When considerably over 20,000 persons in the United Kingdom alone earn their living directly through the photographic supply and manufacturing industries, we are perforce impelled to extend no grudging hand of friendship to an industry that has assumed such healthy life in the destiny of a

people. The plate makers turn out over 26,000,000 dry plates and not fewer than 1,200,000 dozens of films in a year; and over 50,000,000 packets of printing paper, each packet averaging a dozen sheets, are sold in the same period. British photographers spend close on to $10,000,000 in the twelve months on their photographic chemicals alone. The number of trades partly depending on photography is also to be considered. Glass, metal, celluloid, timber, card-board, paper, gelatine, bottles, chemicals, printing—the list is endless.

Photography, as an industry, has, of late years, moved to a front bench in the world's workshop.

## SOME PROJECTION LANTERN NOTES.

WHAT nine men out of ten want to know is, "What materials *must* I have?" I soon found out in my own work, writes J. H. C. in *The Practical Photographer*, that one single thing left out of the routine might imperil the success of a lecture. At every lecture given I noticed at each stage of the proceedings, if any item was wanting or could be introduced with advantage; I then jotted down the name of the article in my note-book. Thus, by comparing the notes of a number of lectures I was able to compile a useful and comprehensive list of necessities. This I printed in bold type and affixed a copy to the inner side of my lantern-box lid.

*The Lantern need not be Costly.* It is a profound mistake to imagine that a lantern must be very expensive to be useful. The crux of the business does not lie in the lamp, but in the user and his methods. I have worked many lanterns of various makes, shapes, and sizes, and found very little difference in projecting power in any of them when carefully operated. The small single lantern is a capable instrument in capable hands. For the travelling lecturer, a small lantern is a *sine qua non.* He must have a small lantern which is portable and capable of being put into a small box.

*The Oil Lamp.* Do not use one if you can avoid it. But the reader may be so situated that he has no alternative. As I am quite certain that this journal has a place in the quiet country village as well as in the large city, a few hints may be acceptable. First of all, then, keep your lamp clean. Owing to the natural laws of adhesion and cohesion the oil will travel to places where you never intended. It will creep all over the inside of the lantern; it will turn corners and cover the outside as well, so that between the intervals of your using the lamp you may find your apparatus all smeared with oil. When you light up again this surface oil will be evaporated and the room filled with evil-smelling oil vapor, much to the annoyance of your audience. Clean the lantern and lamp well with rough towelling. Then put in your lamp-reservoir a supply of the best paraffin oil you can get, filling the reservoir to about one inch from the top. Above all things do not allow the oil to run over. Close up your reservoir tightly and trim your wicks with a sharp pair of scissors which will make a clean out. A wick with a jagged edge is a nuisance, and you will discover it soon after beginning the lecture. In trimming the wick let each side be somewhat lower than the central part; this gives a relatively larger flame with minimum smoke. If you trim the wick straight the sides will emit pinnacles of smoke before you

have turned the light up to its full capacity. Light the wicks and let them burn fifteen minutes before turning up to the full, so as to allow the condenser to be heated gradually.

*An Oil-lamp Stand.* You want the picture well above the people's heads. The base of the picture must be about 6 feet from the floor, and if you have a 12-foot screen the top of the picture will, therefore, be 18 feet above the floor. Then the centres of your condenser and objective must be directly opposite to a point 12 feet from the floor. Clearly, therefore, you must either tilt the lantern or raise it to a level 12 feet from the floor and place it in a horizontal position. Now, *tilting* with an oil lantern is decidedly risky and often impossible. More condensers have been fractured with this tilting than most operators imagine. The tremendous heat from four wicks fed vigorously by an indraught of air is concentrated on the upper front part of the lantern, and as the glass of the condenser will not expand in the direct ratio of its metallic enclosure, it must succumb. To guard against fracture, the condenser should be equally heated.

Here, then, is my plan—tried, tested, and not yet found wanting. *Do not tilt at all.* Get a table properly placed equidistant from the sides of the room; on this a high stool stands and is firmly attached to the table. On this stool is placed a lantern stand. A chair by the table enables the operator to work the lantern wicks comfortably, another chair on the farther side will enable him to change the slides with equal grace. Do not use tripods. They are liable to be upset and to contribute to deplorable accidents.

*The Limelight and the Limes.* Use limelight whenever possible. It is clean, clear, strong, and telling. No smell, no smoke, and—when properly managed—no noise. Neither oil nor acetylene is so generally convenient.

The principal mistakes here are made in operating the limes. Personally, I prefer hard limes, conveniently bought in sealed glass tubes. Limes are more or less hygroscopic, and therefore absorb moisture from the atmosphere. In breaking the sealed tube wrap it in a piece of cloth or paper and tap it gently with a pocket knife. By this means you will break the glass without damaging the lime. Bore the lime axis, if necessary, so as to insure its easy movement on the lime spindle, and in turning the lime during a lecture the operator should do this slowly, so as not to throw the screen into occasional semidarkness. With care there need be no changing of limes during a lecture; if this is a necessity, it indicates some want of forethought on the operator's part; a good hard lime will last two hours at least.

*Jets and Tubing.* A jet cannot work well when clogged. Clean it well before lighting with a small dry brush. Do not probe the nozzle with pins. Bristles will easily remove any obstructions and do no damage. Light the jet ten minutes before lecture time and give the lime an opportunity of being gradually heated, otherwise the lime will crack. Then turn up the light and note the disk on the screen. If the disk has a dark edge all round, the jet must be drawn in or out a little till the dark edge disappears; if the disk has a dark edge on one side only, the jet must be turned slightly to the right or left to remove it. By this slight maneuvring a clear uniform disk is obtained. Then fix the jet firmly by the thumb-screws at that point. It will need no more alteration during the evening.

Tubing should be examined for "cracks" before use. The cracks may be perforations; if so, gas will leak and

vitiate the air of the room. Red tubing is best and should be perfect from end to end. At one end it will generally be attached to an ordinary gas-bracket in the room; the nearer this bracket the better; less tubing is then required. Sometimes, however, these brackets are very inconveniently situated; have therefore a good length of available tubing for emergencies. Where a central star gas-pendant is more easily accessible we may use it thus: Suppose it to have six jets and we, of course, want only one. Cut five small pieces from the tubing, each one inch long, and fit these on to five of the six jets. Cut a black lead pencil into five pieces and use these as plugs for the five small tubes. We have now the gas coming through one jet only. Fasten the tubing to the gas-pipe and to the lantern jet with strong binding to avoid dislocation. It is awkward to have the oxygen tube blown off during a lecture. If we must use a long piece of tubing it must be suspended well above the heads of the audience, so as not to impede their view.

*The Care of the Cylinders.* I have seen them tested under strenuous conditions, filled with gas and thrown on to solid stone without doing or suffering injury. Makers are most careful in their manufacture, and test them at a considerably higher pressure than their nominal capacity. Still cylinders call for reasonable treatment. They are now covered with thick bags to minimize risks of concussion; but even yet there is some misgiving on the part of many people as to sitting near them. To overcome this difficulty a joiner made to my specification a pretty little box nicely painted and polished, a really attractive bit of lantern furniture. The lid and one side are perforated to allow of the tubes and fittings. This box is the snug home of my cylinder. Nobody is ever alarmed at it; it is often admired and few seem to know what it contains. It is square in section and sufficiently long to enclose a 10-foot cylinder, the lid being at one end.

*Manipulation of the Screen.* A "12-foot" is a convenient size and more easily managed than larger squares. Let a plentiful supply of rings be stitched on each side. I do not, as a rule, find a frame necessary when I have a supply of good screw eyes (picture-frame screws). Without a frame proceed thus: Examine the situation where the screen is to be erected. Place two strong screw-eyes in opposite beams; attach the *top* screen corner rings by cords to these; you have now fixed the two top corners. Now turn to the floor and insert two more screw eyes; attach to these the *bottom* screen corner rings. The four corners are now fixed. Now as to creases. Pass cords from corner to corner through *all* the screen rings. This reduces the creases. Attach a cord to the middle ring in each side and fasten it to a screw eye in the floor. This brings the centre quite taut, and the creasing is practically obliterated. Do not wet the screen. Have the lantern in front, not behind.

*Placing the Slides.* Have the slides in *one* box, with a pad of loose paper at either end. Slides should be spotted on *both* top front corners—looking at the film side of the lantern-plate. If they are not spotted I put triangles of adhesive tape on each corner. These can be seen plainly enough and may carry the number of the slide clearly marked in black ink. Now place the slides with spots uppermost, and all facing in the same direction, in the box, and with them a piece of card three and one-quarter inches by four and one-half inches—a postcard will do. Remove the pad from one end of the

box to allow easy movement of the slides. This card is to be a moving guide to the slide placer. He puts the card before No. 1. When he has shown No. 1 slide, he places it *before* the card and takes out No. 2 from *behind* the card; and when he has shown No. 2 he places it, as in the case of No. 1, *before* the card and takes No. 3, and so on.

NOTE.—The *diameter* of the condenser must not be less than the *diagonal* of the slide or negative.

## SOME PHASES OF COMMERCIAL PHOTOGRAPHY.

BY H. S. HOOD.

*In American Annual of Photography*, 1909.

THERE are a great number of photographers who are, it is to be feared, not fully alive to the possibilities of commercial photography in its many phases. Commercial photography, broadly speaking, covers all of the ground not covered by portrait and pictorial work. The field is so extremely large that one man cannot hope to master it all. There are, for instance, the making of cinematograph films, *x*-ray pictures, photomicrographs, architectural, engineering, and mechanical record pictures, interiors, flashlights of all descriptions, and a host of others.

One of the most interesting sides of commercial work is the portrayal of the development of suburbs and summer resorts. As an instance, there is Stone Harbor, New Jersey, which is being improved and developed by the South Jersey Realty Co. In January, 1908, the place was a barren waste of sand dunes and marshy land of a very forbidding appearance. There were a few houses and an abandoned hotel, relics of a former attempt at development which had failed for lack of the "sinews of war." At this stage, and before the company commenced operations, a series of photographs was taken showing the situation in its worst aspects. These were for future reference. A panoramic view was then taken of the beach, which is, by the way, probably the finest on the eastern coast of the United States. Then, while the company was busily engaged in grading the streets, laying sewers, filling in the swampy places with sand, paving streets and sidewalks, and improving the property generally, the photographer took a steady stream of pictures showing the progress of the work, dating the pictures, in order to show the speed of the work. One of the greatest improvements that were made was the conversion of about twenty acres of marsh into good solid ground, to be used for building purposes. Here photographs were necessary to show people later how great were some of the difficulties which had to be overcome. The filling in was done by a giant dredge, which sucked the sand from the bottom of the channel behind Stone Harbor and conveyed it through an immense steel pipe to the spot where it was needed, where it was smoothly spread about, making the filled-in portion as level as a ballroom floor and as solid as a rock. Photographs were taken of the marsh before it was touched, while the dredge was at work, and after the work was completed. Thus a photographic record was kept of the work which had been done. For those who might doubt the ultimate suc-

cess of the enterprise, a series of progressive views was made showing the rapid growth of several resorts which have already been improved along somewhat similar lines.

When the fishing and bathing seasons opened, another field of endeavor presented itself to the photographer. At this time the company decided to issue a periodical, which was to set forth the advantages of Stone Harbor's fishing, bathing, and other attractions, and, of course, there were illustrations to make of well-known fishermen and their catches, groups of bathers, sailing parties, and notable visitors. Then there were views to make of the company's special trains bringing prospective buyers of lots; and views of some of the numerous cottages which were at this time in course of construction, some of which were nearly completed. These were incorporated in the company's latest prospectus, copies of which were sent to interested parties. It will be seen that there is a good field for enterprising commercial photographers at the newer resorts, and one that is not cultivated as it deserves to be. The work presents no insurmountable difficulties and is interesting in the extreme.

The equipment required for the usual run of work of this kind is not at all extensive. It consists merely of a good lens, preferably an anastigmat with a focus of about twelve inches; an 8 by 10 view camera, and a shutter capable of making exposures of one-one-hundredth of a second. The best plates for use at the seashore are non-halation orthochromatic plates. Next to these rank the single-coated plates of medium speed, such as the Lumière Blue Label or the Seed 26. It is, however, poor policy to use any but the best materials for any kind of photographic work. It is true there is an old saying that "A poor workman blames his tools." It is also true that a good workman can do better work with good tools than he can with bad or indifferent ones. Good negatives have been developed in pie plates, and the writer knows of cases where plates have been developed in pasteboard dry plate boxes with good results. Note this, however, the plates were of the finest quality and the developer was compounded with the purest chemicals. For some seashore work single-coated plates will do very well, but in the majority of cases the double-coated plates will give the best results. It is a hard matter to get brilliant snappy negatives on a sandy beach on a bright clear day. Unless orthochromatic plates are used and developed in the tank, the sand is very likely to appear as pure white paper on the finished print, while the sky is much too dark and totally lacking in atmosphere. Another reason for a good many of the failures is the use of too fast a plate, with its consequent overexposure and flatness.

Another side of commercial photography that holds a great deal of interest for the serious worker is that which includes the taking of machinery. As a rule the standard works on photography do not give much space to this important branch of the work, which is strange enough when we consider the many difficulties to be overcome and the many troubles that are very often encountered. Judging by about 90 per cent. of the pictures of various kinds of machinery that the writer has seen, the subject does not seem to be as well understood as it might be. The average photographer does not seem to think that it is necessary to make any effort to properly light his subject. If a portrait photographer placed a sitter directly before a window with his or her back to it and made the exposure in that position, the result would be a photographic outrage and the sitter would have none of it; and yet this is what is done daily in the case of

machinery. It is, of course, impossible to move the average machine, so if it happens to be placed in such a position that it is necessary for the operator to work against the light, said light consisting of several windows, the obvious thing to do is to cover the offending window with burlap, wrapping paper, newspaper, or anything else that happens to be handy and will serve to keep out the light. If this is not done, and the picture is taken by daylight, no matter which kind of plates are used, halation will result.

In most cases, after the windows behind the machine are darkened, there will not be enough light entering from other sources to permit of any but a very long exposure, and usually the light that does enter will be very uneven, rendering it practically impossible to obtain an evenly lighted soft negative showing the machine to the best advantage. Here, then, is a case where the use of artificial light of some sort is imperative. The best light is, of course, that given by the combustion of magnesium. Some manufacturers will not permit the use of flash powder of any kind in their plants. In these cases, electric light can be substituted, if it is available. One fifty candle power incandescent lamp placed upon the end of a loose wire about twenty feet in length will often be sufficient for the purpose. The lamp can be moved around at will during the exposure, enabling the operator to spread the light very evenly. A machine not over fifteen feet long, lighted in this manner, will require about ten minutes' exposure with the lens stopped down to *f*/22. The length of the exposure varies with the color of the machine. This should not occasion any trouble, as the majority of machines are painted dark colors.

The average manufacturer of machinery will, however, offer no objection to the photographer using flash powder, and if carefully used there will be no danger of a fire. The best powder to use is pure somewhat coarse magnesium, and the best lamp to use it in is a small blow lamp having a capacity of one-half ounce. This quantity of powder is sufficient to illumine a machine thirty feet in depth. The lens can be stopped down to *f*/32. The lamp should be kept moving during the exposure, in order to prevent too deep shadows and disagreeable reflections. When a machine is perfectly new, it is sometimes rather hard to completely obviate the reflections. Where troubles of this sort occur frequently, it is a wise plan to arrange with the manufacturer to have the machines photographed before they are varnished. When the machine is constructed entirely of iron or steel, it is usually painted dark green or black, and it is a comparatively simple matter to avoid reflections. Any parts that appear too glossy can be rubbed with putty before making the exposure.

A machine that has been installed and running for some time will present far more difficulty than a new one, owing to the fact that it will be in all probability pretty well covered with oil. All appearance of greasiness can be removed by simply rubbing finely powdered charcoal or lampblack over the machine wherever needed. This can, naturally, only be done when the machine is painted black. When it is painted any other color, the only thing to do is to have it thoroughly cleaned.

When the average person looks at a safe, the impression it conveys to him is of something very black and very shiny. Now, if this same person owns a camera and has a smattering of photography, and photographs the safe under ordinary conditions, the result will furnish him with considerable food for thought. The finished print will show not only the safe, but also the camera, the operator, and all of the furniture that stood oppo-

site the safe and behind the camera. At this point he will probably take another look at the safe, and this time he will see a number of things in it that he probably never noticed before. The writer speaks feelingly concerning the above, as he has been there. In order to get a perfect picture of a safe, it is necessary to get a piece of black cloth considerably larger than the safe, cut a small hole in it for the lens to peep through, and place it before the camera, thus screening off all objects that would otherwise be reflected. The light must come from both sides of the camera, and should be a trifle stronger on the one side than on the other. If a flash lamp is used, it must be well screened.

In photographing furniture, the same troubles are often met with that bother us when we attempt to portray a safe, but to a lesser degree. One of the most difficult pieces of work that the writer ever attempted was making 8 by 10 pictures of six new Grandfather's clocks. The reflections came from all sides, and it was only after we moved the clocks to every conceivable place in the room and screened two sides and the floor of the room, that we were able to get satisfactory pictures. In photographing furniture there is a great tendency to overexpose, even among experienced workers. The exposures should be as short as possible, and the plates should be be developed in a developer such as eikohydro, which gives vigorous negatives, full of detail. The slightest overposure will cause the grain of the wood to look flat, and this is the worst defect that a picture of this kind could possibly have. Mission furniture is the easiest to photograph. Veneered and enamelled pieces present more difficulty. The secret of success in this line is, "Don't overexpose."

## PROFESSIONAL PHOTOGRAPHERS' SOCIETY OF NEW YORK.

NEW YORK, January 1, 1909.

FELLOW PHOTOGRAPHERS:

The replies received from the postal card vote regarding the opening of our 1909 Annual Convention Picture Exhibit to the press and public at a specific and stipulated time were overwhelmingly in favor of the innovation, at a ratio of about 8 to 10 in 200 returned cards.

Your executive, therefore, will proceed with the idea as outlined in the little program sent you with the card, and will appoint a committee to make all necessary arrangements. I ask your help to the extent of making this year our banner exhibit. Personally, I am in strong accord with the plan, and feel that an exhibit, with the importance and artistic excellence of last year's, should have had all the magazine, press, and general publicity possible. It could only have worked for good and done more to command the respect and admiration of the general public than ten years' exhortation and talk. It certainly was a very good show, but we want to go it one better this year and open the whole exhibit to the press and public at a proper and prescribed time.

Select your picture, and let me make the suggestion that you obtain, if possible, a written release for reproduction rights in the papers, so that there may be nothing in the way of its proper and legitimate use for the furtherance of such ends as your Committee may conclude to adopt and arrange for. Also make a feature of the idea; it should prove a good card to talk about and help the progress of our Art in the eyes of your patrons, and give value to its

importance in the minds of the public at large.

The Committee whose names are added will have this matter in charge, and I feel sure that we may all have the utmost confidence in their ability to handle this subject in such a manner as shall further your interest and meet with your entire approval.

Wishing you a happy and prosperous New Year,

Very truly yours,
A. F. BRADLEY.

MR. FLOYD E. BAKER,
COL. THEODORE C. MARCEAU,
MR. B. J. FALK,
MR. JOSEPH BRYON,
MR. A. F. BRADLEY,
Committee.

## BOOKS RECEIVED.

*The British Journal Photographic Almanac*, 1909, edited by George E. Brown, F.I.C., forty-eighth year; 1336 pages; paper cover, 50 cents, postage 27 cents; library edition, $1.00, postage 37 cents extra. George Murphy, Inc., New York, American Sales Agent. This hardy annual is better than ever, but not bigger than ever, being a few pages smaller than last year's issue. By cutting out some unnecessary matter and condensing, the editor is endeavoring to reduce its bulk somewhat. The 423 pages of reading matter include an able article on the reflex camera and an *epitome of progress* compiled by the editor, in which will be found classified abstracts of papers, communications and articles describing progress in technical photography, which have appeared in the British and foreign press during the twelve months, October, 1907, to October, 1908. This epitome contains much valuable information and formulæ, and is alone worth many times the cost of the book. The frontispiece is a three-color portrait of Thomas R. Dallmeyer, the well-known optician. A section of the book is devoted to recent novelties in apparatus, and, as usual, a large portion of the book is devoted to advertisements—and it is not the least interesting portion, either. 186 pages of selected formulæ for the principal photographic processes make it a valuable reference book. Order a copy today; it is a splendid investment.

*Photography for Young People*, by Tudor Jenks, 328 pages, cloth, illustrated. New York, Frederick A. Stokes Co., 1908, $1.50 net. A popular handbook for young people, describing in simple language all the hidden mysteries of photography that the juvenile ought to know. It is a good book to be read by the younger members of the photographer's family, enabling them to take an intelligent interest in "papa's" business.

*Penrose's Pictorial Annual—The Process Year Book. A Review of the Graphic Arts for* 1908-9, 208 pages, 66 color supplements, illustrated, cloth; price, $2.50, postage 35 cents extra. Edited by William Gamble, London, A. W. Penrose and Co., Ltd.; New York, Tennant & Ward, American Sales Agents. This splendid record of the year's progress in the reproductive arts makes a gorgeous book of beautiful color plates. Every process by which printed reproductions can be made is demonstrated by fine examples. Many of the articles contributed are of special interest, especially those on the autochrome process, the possibilities of which have not yet

been tried out by many photographers. In the editor's introduction we notice that he refers to photogravure as the most artistic process, remarking "that it still holds the foremost place as the most artistic and beautiful of all the photomechanical processes, and were it possible to produce the prints with greater expedition and cheapness no other process could compete with it for inset illustrations in high-class books and periodicals." It is a process within the scope of every professional photographer, and has wonderful possibilities. The frontispiece of the annual is a fine photogravure. It is a book that should be of much interest to the photographer.

## SELF-INSTRUCTING LIBRARY OF PRACTICAL PHOTOGRAPHY

We have received the first five volumes of this monumental self-instructing photographic library, published by the American School of Art and Photography, of Scranton, Pa. This great work, carried through by J. B. Schriever and Thomas Harrison Cummings as editors, assisted by the staff of the American School of Art and Photography, gathers together the complete working instructions for the practice of photography in this year of grace 1909.

The library is the result of the concentrated experience of every department of the American School of Art and Photography in the instruction of its vast numbers of students residing in all parts of the globe, an experience which enables the treatment of every feature of camera craft with a broad knowledge of its varied conditions.

Volume I is devoted to elementary photography and is almost entirely for the beginner, illustrations being freely used to show him the correct and incorrect methods of procedure. A very useful chapter in each volume is the one describing how the studies illustrating the volume were made, giving data of lens, stop, plate, developer, and paper.

Volume II. Development and after-treatment of the negative, with working diagrams of dark rooms, etc., and many formulæ, tables of symbols, weights and measures, poisons and antidotes, etc.

Volume III takes up general exterior photography, composition, and lenses.

Volume IV is devoted to photographic printing completely, with a chapter on mounting. One-half of the volume is devoted to developing or gaslight papers.

Volume V takes up at home portraiture, flashlight interiors, copying, enlarging, lantern slides, and transparencies.

Each volume contains a very full general index, and as every paragraph is numbered it is a very simple matter to locate any item needed. Volume IV, for instance, contains some 1253 paragraphs, each conveying an item of information, and the index occupies no less than 36 pages.

The remaining three volumes, we understand, are on press and will be issued very shortly. The volumes we have before us in half red leather, marbled top and sides, with gold stamping, make an imposing appearance, and will be an ornament to any photographer's library. The few typographical errors which have crept in—almost unavoidable in a work of such magnitude—will be eliminated in the second edition, which will soon be needed. Prices and prospectus of the complete library will be furnished by the publishers, The American School of Art and Photography, Scranton, Pa.

# TRADE NOTES.

THE VOTE-BERGER AUTOMATIC CONTACT PRINTING FRAME, briefly mentioned in our last issue, is the latest and one of the simplest developing paper printing machines we have yet seen. Naturally, a paper that prints in a few seconds should be handled in a printing frame in the same or even less time. The mechanism of the frame is such that the paper is brought into contact with the negative and the frame pushed home to its position before the exposure light in one motion of the right hand, so that the left hand is free to handle the print in the developing tray when a quantity of prints are wanted in a hurry. The machine is simple in construction, with nothing to get out of order, the working part being a sliding printing frame with a flexible back running in brass grooves. A contact bar fitted to the centre of the back of the printing frame when in exposure position is adjustable to any desired pressure and different sizes of paper by means of set screws.

A description of the machine, however, cannot convey any idea of the ease and rapidity with which prints can be made. Pushing the paper in, counting the seconds, and taking the print out, fully describes the entire operation. We have worked the machine and thoroughly recommend it. The price for postcard and up to 5 x 7 size is $25. Detailed circulars can be had by writing the Vote-Berger Co., La Crosse, Wis.

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THE BAUSCH & LOMB OPTICAL COMPANY have just issued two very fine catalogues, that have more or less interest for the photographer. One of them describes very fully a splendid line of projection lanterns, under the name of "Balopticons," ranging in price from $50 for the single lanterns to $200 for the double dissolving lanterns. These beautiful instruments are built with the precision of a watch and the strength and finish of a machine gun. The other catalogue refers to the line of photo-engravers' optical accessories, and the photographer with a half-tone engraving plant should have a copy. The Bausch & Lomb Company, Rochester, N. Y., will be glad to mail copies on request. Photographers who are not receiving each month a copy of *Prism*, issued monthly by the firm and mailed free of charge, are missing a very interesting and readable little journal.

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THE DEFENDER "TIPSTER"—a book that helps you and doesn't injure us—compiled by the Defender Photo Supply Co., Rochester, N. Y., is very much as described by its sub-title. All the well-known papers made by this concern are very fully described; a variety of formulas and all kinds of useful hints are given. It is another of those handy little guides to certainty and success which aim to make the photographer's lot a happy one. You need a copy for your workroom.

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THE NATIONAL COLORTYPE CO., of Cincinnati, Ohio, will make you 1000 postcards—views of your own city, in color, for $6.85. The samples of hand-colored cards we have before us are splendid value at the price, and will be quick sellers at a price that will net a respectable profit. The cards can be made from any fair photograph and deliveries made in two to three weeks. Get a good negative of your finest building or city park and try a thousand. The picture postal card is more popular than ever.

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PHOTOGRAPHERS handling amateur supplies will do well to get the new 1909 price list of goods manufactured by the Ansco Company, of Binghamton, N. Y. This line of goods is well and favorably known and is being extensively advertised.

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FROM the *Binghamton Press*, N. Y., we learn that Mr. F. R. Wyckoff, for some years treasurer of the Ansco Company, has severed his connection with the company and is about to erect a large factory for the manufacturing of the same line of goods. Binghamton looks like becoming another Rochester.

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WELLCOME'S *Photographic Record and Diary*, 1909—a pocket-book of photographic information, with a simple but effective exposure calculator; exposure tables for copying and enlarging, interiors, night pictures, moving objects, etc. Under the heading of "Photographic Processes" are given the most modern methods and practical instructions for development, intensification, reduction, toning, etc. Bound in red cloth, with wallet and pencil complete, 50 cents. Burroughs, Wellcome & Co., New York, publishers.

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WE hope that Santa Claus did the right thing by all our readers, but if he forgot to leave such handsome and useful gifts as a Thayer Interval Timer, a Kodak Dry Mounting Press, an Eastman Plate Tank, or a dozen of the Painters' series of Reproductions of World-famous Pictures, it is not too late to begin the New Year right by ordering at once these first aids to good workmanship efficiency, lightened labors, and long bank accounts.

# WILSON'S PHOTOGRAPHIC MAGAZINE

A MONTHLY MAGAZINE FOR PRACTICAL PHOTOGRAPHERS

Founded in 1864 by EDWARD L. WILSON
L. W. WILSON, Publisher and Proprietor
T. DIXON TENNANT, Editor

EDWARD L. WILSON, 122 EAST TWENTY-FIFTH STREET, NEW YORK
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## EDITOR'S TABLE.

THE twenty-fifth number of *Camera Work* is equal in interest and beauty to any of its proud predecessors. The illustrations are especially interesting and executed in splendid style, Mrs. Annie W. Brigman contributing five remarkable figure studies; Ema Spence and C. Yarnall Abbott, each a picture; and two by Frank Eugene—one of them his clever portrait of Alfred Stieglitz. The letterpress includes "Impressions of the Linked Ring Salon of 1908," and "Personality in Photography," by Frederick H. Evans, which stirred our contemporary, the *New York Evening Sun* to the reply which we print elsewhere in this issue. In this number of *Camera Work* Mr. Stieglitz has set a very high standard and one that he will have difficulty in passing. While the subscription price ($6.50) of this beautiful quarterly may seem high, it is well worth all, and more, than it costs.

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THE Photo-Secession has arranged the following exhibitions for the winter at their gallery, No. 391 Fifth Avenue, New York: Photographs by Mrs. Annie W. Brigman, California; Mr. Frank Eugene, Munich and New York; New British School (Messrs. Malcolm Arbuthnot, Walter Bennington, E. Warner, and others); the Viennese School (Messrs. Hugo Henneberg and Heinrich Kühn). Photographs in monochrome and autochromes, Baron A. de Meyer, of London and Dresden; Mr. Alvin Langdon Coburn, New York and London. Autochromes, Mr. J. Nilsen Laurvik. Etchings; Mr. Arthur Alen Lewis, New York. Caricatures in charcoal. Mr. Marius de Zayas, Spain and New York. Loan collections of rare Japanese prints from the F. W. Hunter collection, New York.

The members' show, which has just closed, was an unusually good one, strong in good portraiture —the baby portraits especially. Visiting photographers should make a point of visiting this gallery; it is open daily, Sundays excepted, from 10 to 6. A visiting card admits.

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FROM LeRoy Kellogg, of Denver, we have received two very clever firelight photographs, in which the light—presumably from an open grate —is very effectively managed. The process is a chemical one, and will, we understand, be made public.

FROM the Camera Club, New York, we have received an illustrated booklet describing their handsome new quarters at 121 West Sixty-eighth Street, where they are settled down in good running order. The membership is steadily increasing, and the club is reported to be in a flourishing condition. Following its educational policy, it has arranged for a demonstration of the Kodak Improved Ozobrome Process, by Milton Waide, and an illustrated lecture on "Spain," by Frank Scott Gerrish, to be followed by others at regular intervals.

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THE Executive Board of the Photographers' Association of Iowa, at a recent meeting, decided to hold their next annual convention May 11 to 14, inclusive, at Waterloo, Iowa. Arrangements were made for demonstrations by prominent photographers along the lines carried out at the National Convention at Detroit last year. W. S. Lively, President of the Southern School of Photography, will be present and give lectures and demonstrations in negative making. Iowa photographers should take note and make their plans accordingly.

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BUFFALO Section No. 6, of the Professional Photographers, held a meeting at the studio of Hubert Bros., Buffalo, on the evening of November 30. The meeting was called to order by Chairman H. A. Bliss, with seventeen members in attendance.

The hit of the evening was made by F. Jas. Sipprell, in his art talk preceding his very excellent criticism of the pictures sent in for exhibition, each member having two to his credit.

The different methods of procedure regarding the disposal of proofs were discussed, and questions of interest in connection with technique were answered impromptu.

An adverse opinion concerning the constitutionality of a license for ticket pedlers was handed down by Judge Hodson. This and other papers pertaining to the same were read by Chairman H. A. Bliss.

A rising vote of thanks was tendered Mr. Sipprell and Hubert Bros. for their entertainment, after which the meeting adjourned.

HOWARD D. BEACH,
Secretary.

By Kenneth Alexander, Millville, N. J.

# WILSON'S PHOTOGRAPHIC MAGAZINE

FOUNDED IN 1864 BY EDWARD L. WILSON

VOL. XLVI FEBRUARY, 1909 No. 626

## THE ROCHESTER CONVENTION.

BY THE EDITOR.

THE policy and the plans for the Twenty-ninth Annual Convention have been decided upon, and it is now up to the members of the Association to back up their officers in an endeavor to make the Rochester Convention a big success and the starting point of a new era of convention progress.

July 19 to 24, inclusive, should be marked off on every professional photographer's calendar with a big red mark—red-letter days to be looked forward to and by no means overlooked. Members of the Association will have little difficulty in making up their minds to be on hand in Rochester, as the many attractions offered this year are announced. To any of our readers who are not members of the Association, we would point out that the advantage to be gained by active membership far outweighs the expense of attending.

The Convention this year will cover the entire week, beginning with the first session of the school of photography at noon on Monday, July 19, and closing with an exhibition of the work done by the school during the week on Saturday, July 24.

The success of the school idea last year has led to its adoption for the present year, but improved by the experience gained from last year's school. Some of the best photographers in the country have accepted President Barrow's invitation to take classes, and a specialty of high-class routine work will be the feature of the classes as against the more specialized and individual instruction of last year.

Another good feature of this year's meeting is the elimination of prizes. We do not think that our best photographers are anxious to compete for prizes—money or medals—until such time as a much more satisfactory method of judging has been arrived at, and which is of necessity a long way off. With the competitive element left out, a good display of pictures is assured. President Barrows has already secured the written promise of a large number of our best workers to send a good display of their work.

A good plan to be followed this year is the separation of the assembly hall from the picture exhibit and manufacturers' display. The business meetings will be held in the ball-room of the Seneca Hotel, which has been selected as headquarters. It is capable of seating over one thousand and has the advantage

of being right on the spot. The picture display and manufacturers will be located in Convention Hall, just one block from headquarters.

Not the least interesting day of the whole week will be the day devoted entirely to sightseeing, and when it is remembered that Rochester is the greatest photographic manufacturing centre in the world, it will be seen that the sights are altogether different from the usual Soldier's Home and City Hall, offered as things to be seen. There are few photographers who will not be glad of an opportunity of seeing such magnificent plants as Kodak Park and the Bausch & Lomb optical works. Unusual facilities have been promised for viewing the many and varied photographic manufacturing works. Rochester itself has many attractions to offer, and an enjoyable week can be spent for a very reasonable expenditure.

One of the evening discussions—there are to be two—will be devoted to the question as to whether or not the constitution and by-laws cannot be revised to advantage. This is a question that should raise considerable discussion, and will have to be taken up energetically if any changes are to be effected, for changing a constitution is about as difficult as getting the camel through the eye of a needle.

A determined effort is being made this year toward a material increase in membership, and it is confidently expected that between two and three thousand will answer the roll-call. Begin to make your plans now, so that July 19 will find you in Rochester prepared to take advantage of the many good things that will be offered for your profit and pleasure. You will meet all your old friends and can make many new ones. The officers are putting in a great amount of hard work for your benefit. Be wise and take advantage of it.

## EXECUTIVE MEETING OF P. A. OF A.

ROCHESTER, N. Y., January 12, 1909.

THE executive committee of the Photographers' Association of America met in executive session at the Powers Hotel, Rochester, N. Y., January 12, 1909, to arrange for the Twenty-ninth Annual Convention. There were present: F. R. Barrows, President; A. T. Proctor, First Vice-President; J. H. C. Evanoff, Second Vice-President; L. A. Dozer, Treasurer; G. W. Harris, Secretary.

*Report of Secretary.*

| | |
|---|---|
| Received on old accounts . . . | $50.00 |
| Received for floor space . . . | 2190.00 |
| Received for desk space . . . | 325.00 |
| Received for advertising . . . | 882.00 |
| All other privileges . . . . | 200.00 |
| Total . . . . . | $3647.00 |
| Paid to F. R. Barrows, Treasurer | $3647.00 |
| Outstanding account . . . . | 15.00 |

*Treasurer's Report.*

| | |
|---|---|
| Cash on hand January 1, 1908 . | $4838.19 |
| Received from membership dues . | 2074.00 |
| Received from Secretary . . . | 3647.00 |
| Received from sale of ladies' pins | 51.00 |
| Total . . . . . | $10,610.19 |

*Disbursements.*

| | |
|---|---|
| Paid out on vouchers No. 737 to 841, inclusive . . . . . | $5911.95 |
| Balance on hand January 1, 1909 | $4698.24 |

President Barrows appointed L. A. Dozer and G. W. Harris to audit accounts of Secretary and Treasurer, which were found correct and approved.

It was decided that the Twenty-ninth Annual Convention of the Photographers' Association of America be a

six days' session, July 19, 20, 21, 22, 23, and 24, 1909, in the Rochester Convention Hall, Rochester, N. Y.

The Seneca Hotel was selected as official headquarters for the convention.

Upon motion it was decided to again conduct a school of photography, demonstrations to be made by leading American photographers.

It was decided that a day be given for visiting the photographic manufacturing interests of Rochester.

It was agreed that we set apart an evening for the discussion: "Does our Constitution and By-laws need Revision?"

Moved and seconded that the Association set aside $100 for the best invention process or appliance pertaining to photography that has not heretofore been exhibited at a National Convention.

It was decided to adopt an extensive plan of advertising in order to increase our membership. The Secretary was instructed to bring to the attention of every professional photographer in the United States the advantage of attending the Rochester Convention.

The President appointed a committee of three members who have signified their intention of attending the international Photographic Exposition at Dresden, Germany, to officially represent the Photographers' Association of America at that meeting.

Owing to the jealousies and ill feelings caused by competitive exhibits, and feeling that a more fraternal spirit will prevail by not giving prizes, it was decided that for the best interests of both photographers and manufacturers, the 1909 exhibition is to be wholly complimentary, no prizes whatever being offered.

The following rules and regulations were ordered to govern the exhibit of the Convention.

*Rules and Regulations.*

1. Exhibitors are requested not to exceed six prints in their exhibit—no other restrictions.

2. Application for exhibition space must be made to First Vice-President, A. T. Proctor, Huntington, W. Va.

3. All exhibits must be sent prepaid to A. T. Proctor, First Vice-President, Rochester, New York, care of Rochester Convention Hall, and must reach Rochester on or before July 10, 1909. Any exhibit not having express charges prepaid will not be accepted.

4. The Association will not be responsible for any loss or damage to pictures in its charge, but special precaution will be taken by the Committee to insure the safe return of all exhibits.

5. No exhibits shall be removed from the Hall until after the close of the Convention. Exhibitors who desire to personally take charge of, or remove their exhibit, may do so only by permission of A. T. Proctor, Chairman of the Hanging Committee.

6. This exhibition being a complimentary one and the photographs being solicited with the understanding that they are to be returned to the rightful owners, all exhibits will be returned to them intact at the close of the Convention.

7. All exhibits are to be hung by States.

The following list of committees were appointed by the President for 1909:

Hotel and accommodations, Evanoff, Harris, Dozer; entertainment, Evanoff, Harris, Proctor; decoration of hall, Proctor, Evanoff, Harris; membership buttons, Dozer, Proctor, Evanoff; press, Harris, Proctor, Dozer; printing and advertising, Harris, Evanoff, Dozer; information, Dozer, Harris; transportation, Evanoff, Proctor, Dozer; Association Annual, Proctor, Evanoff,

Barrows; local press and entertain ment, Mock.

It was suggested that the various organized bodies of the Professional Photographers be invited to send a delegate to the Rochester Convention to devise ways and means of affiliating the National and other photographic societies, that they may coöperate in advancing their common interests.

G. W. HARRIS,
Secretary.

## ON EXHIBITIONS.

IT has been decided that the picture exhibit of the Annual Convention of the P. P. S. of N. Y. shall be opened to the press and public. This is an innovation, and it may be timely to investigate how far exhibitions in general help to further the interests of the gallery owner, help to educate the public, and serve as a stimulant to photography itself.

To the painter, exhibitions are the only means by which the general public can get acquainted with his work. They present to the average artist the legitimate way of showing his work and offering it for sale, and it would be difficult to find another method in which this could be accomplished in the same satisfactory manner. Studio exhibitions can be arranged successfully only by artists who are prominently connected, and the dealer is at best merely a middleman for possible buyers. To some artists he may prove a great help and to others a great hindrance.

In the case of the professional photographer it is somewhat different. He is exhibiting all the year round in his show cases and reception room. This gallery is a combination of workshop and salesroom, and the easiest way for him to become known is to attend to his business. Every picture bearing his name is an advertisement. An occasional exhibition will add but little to his local reputation (after all a professional's principal concern), unless conducted like a social function, as is the custom of J. C. Strauss and several other well-known photographers.

The chief drawback to a public exhibition of portraiture is its lack of interest. The routine work of the professional does not seem quite important enough to be shown in public exhibitions. The average print is only of interest to the sitter and his friends. Even an exhibition of paintings like the ordinary Academy exhibition is at times tiresome, being generally nothing but a repetition of one preceding it. One would miss very little by not attending. Only every few years it would become a necessity, as then a decided change in art ideas and methods of expression might be perceptible. And surely nobody will claim that an annual display of monochromes, no matter whether etchings, lithographs, or photographs, can be half as interesting to habitual visitors of art exhibitions as a collection of paintings. How seldom are exhibitions of lithographs and etchings arranged! The wielders of the needle and the crayon know too well that they appeal only to a very small part of the art-loving public, and that they would gain but little by a more frequent display of their talents.

Also the professional photographer, no doubt, is aware of this. And yet he is fond of exhibiting. Why? I believe mainly for three reasons: First, because he wants the other boys to see what he is doing. Second, because he wants to know what the men in other

towns and the top-notchers are doing; he wants to instruct himself. "In going to conventions," as E. B. Core so aptly says, "it's the idea we bring home that counts." And third, to win, if possible, some sign of professional recognition, an official stamp of approval, like a badge or cup, award or mention, that may be used as an endorsement and recommendation.

The exhibits of the old-time contributions were a sort of general assembly crowds for the exchange of ideas. It was a big family affair, despite the bitter competition that took place occasionally. The public was never thought of.

There has come a great change in these matters of late. Awards have been abolished. The time-honored institution of the jury has gone out of commission, and the group exhibits have been replaced by a democratic each-man-one-print exhibition. And now these exhibitions will be thrown open to the general public.

I have had occasion before this to note down my objections to the one-print exhibition. They do not bring out the individuality of the different exhibitors. No man's work can be represented by one example. It kills competition.

But this may be just what the promoters of this idea desire. To arrange occasionally an exhibition in some prominent event which could give to everybody, good and bad alike, an opportunity to show their latest work. To give everybody an equal chance has been the ideal of all exhibitions, and it is very generous, to say the least, of those who have already distinguished themselves to let newcomers and minor talents share their honors. Nobody can dispute that the exhibitions of the P. P. S. of N. Y. Convention were managed in a most recommendable, generous, and impartial spirit.

But the trouble is that an exhibition conducted on such humanitarian principles really gives nobody a chance. An exhibition should give the younger immature talents an opportunity to assert themselves. They should make their debuts there, and show the progress of their work from year to year. It should be their battleground, where they could struggle and rise from mere beginners to full-fledged personalities. There is no chance for this in such limited exhibits. It is absolutely impossible to grasp each exhibitor's individuality, his special aims, and technical characteristics.

It will, however, do one thing, the importance of which cannot be overlooked. The total effect of this exhibition will not be the display of individual efforts, but of photography itself. As every New York photographer of note will be included, it will give us a comprehensive insight into the present state of development of professional photography in New York State.

For that reason it should be of more than ordinary interest to the press and art writer. If cleverly managed, the 1909 exhibition, no doubt, will get a full share of magazine, press, and general publicity, and in that way "work for good and do much to command respect and admiration." Whether the general public will share in it is extremely doubtful. Association and club exhibitions of any kind never attract the real public, but only the members of the associations and clubs and their friends.

An exhibition of photographic prints is at its very best rather monotonous, and lacks absolutely the ability of holding the public for any length of time. They simply wander aimlessly through the exhibition and pause here and there for a moment before a print which strikes their peculiar fancy. The art critic and connoisseur may

take the trouble to sift the wheat from the chaff; the layman has neither the ability nor the inclination to do so.

Nevertheless, it is an experiment well worth trying. If the old way of holding exhibitions is no longer satisfactory new ways have to be found, and perhaps this year's method will lead nearer to the solution of the problem than any previous one.

To those people who do not understand the vocation of criticism—and there are many—it may be added that the writer of these lines did not indulge in faultfinding of the Committee's plan and intentions, but merely analyzed conditions.

The problem of how to hold exhibitions has ever been a Gordian knot, and there is nobody who can unfasten it to the satisfaction of everybody.

## LONDON PHOTOGRAPHY.

BY KENNETH ALEXANDER.

It has been my good fortune to work as an assistant on both sides of the Atlantic, and I thought it might interest the readers of Wilson's to hear about photography in London at the present time.

On this side the men who produce the finest work are those who have a finger in the pie—from the start to the finish. The difference in the style and effect of the work of the leading men is very great—yet all is excellent. In London, though, to an extent the idea prevails of there being one standard quality of good negative, and I feel sure that if you went into six of the best studios in London today, you would not find the average negative quality vary in the smallest degree. One is shown endless styles varying in mount, etc., or perhaps some small thing in the printing. Just now some of them are having a run from taking the rims and borders from the old engravings and printing them into the photographs—one man has twenty or thirty of these all varying. It entails extra work in the printing, but it must evidently affect the balance at the bank, or it would not be kept up.

There is a tendency toward the smaller sizes, the English professional having faith in "quantity and quality pays."

In New York, I believe, the best men adopt more or less one style of work as their own, and produce it exclusively (one man has one size and style only).

The system of apprenticeship still prevails in London, and by this means nine out of ten assistants gain proficiency; in many cases a boy will start in as an apprentice, and in the course of a few years work into quite a comfortable position in the firm; although it does not tend to produce individuality, it produces a first-class technical workman.

In the larger studios, where sometimes thirty or forty people are employed, excellent training ground can be found for the boy who has his mind made up to be a photographer. He usually begins making himself useful washing and fixing and filling in, all the time getting hold of the things which are necessary to make a good printer. By degrees he works his way up to the operating room.

Of course the light in London is a very hard matter to deal with; in the winter months it is varying every few seconds, and sometimes for a week

continuously there will be a thick yellow fog—this penetrates everywhere; it is necessary to have an extensive system of electric light in the up-to-date studio. The fog is still there, but appointments are not so numerous nowadays that they can be postponed, and competition is too keen.

The photographing of Royalty in England is still a very paying thing, though the way of making money out of them is not so direct as it used to be; ten or fifteen years ago they used to order well, now the photographer depends largely for his profit on publishing and postcards, which has led to there being a regular publishing department attached to some studios.

Royalty, of course, is a fine advertisement, and it is a big help for a man to be able to sign himself, "By Appointment" to this or that royal personage, and one hears weird and wondrous tales of how they are secured. Ah, it must be a long and weary road to build up a successful connection in London, but to me as an assistant it seems that when you "get there" it is very renumerative, for one hears of Mr. So and So (perhaps favored by fate or favoring himself with the name of one of the old masters) owning his residence on the most exclusive part of the Thames, and some others owning rows of houses and the controlling interest in some plate company. But men such as these started in the good old days when there were not dozens of the finest photographers in London; for I am sure anyone walking down Bond Street would find the work about as perfect professionally as one could wish; it seems that the work in London runs toward delicacy, and is rather quiet, while in the United States (New York, at any rate) it is big, broad, and dashing; there is more striving for newness and individuality here.

In London, too, men specialize; there is the child photographer, the Court photographer, the theatrical photographer, etc., but they do not exclusively practise; it simply means they are fitted out more for the branch they specialize in. For instance, the Court photographers are specially laid out for the comfort of the favored few who are presented at Court.

In the life time of Queen Victoria the drawing rooms were held in the day time; so that there was no need for special lighting arrangements.

The donning of a court dress is too strenuous a matter to be undertaken frequently; so that the majority of people wish it to be photographed immediately before or after the court, and for this reason some of the studios are booked up with appointments until three or four o'clock in the morning.

Quite a picturesque scene takes place on Court nights; to see a dozen or so people in the waiting room, with always the marvellous dress creations and bouquets fresh from the Court florist, and often an array of delicate aristocratic features as well. Such an artistic display of wealth is to anyone with taste and perception a real treat.

In the operating room everything runs smoothly. The sitter enters—a few touches to the dress, perhaps a suggestion to turn the body or tilt the head, during which time two or three assistants have been doing their part, one securing the best lighting, another focussing and getting the correct size, and possibly another behind the scenes to keep up a continuous supply of fresh plates; this, at any rate, was the method of procedure in one of the London studios of which I have until lately been a part. Another firm, which has a studio which must have cost many thousands to fit up, has a beautiful room where clients may meet their friends and take afternoon tea quite free of charge; and a nice pleasant little lady

is always on hand with a selection of specimens. Moreover, it is all done well, so it will not give the impression that the customer is being coaxed.

I would like to remark in passing that there are many women photographers in London, some of them doing very nice work. The season is not as long as formerly. There is a small rush before Christmas, then quiet until April, and from then on until the middle of July is the fashionable London season and the photographer's harvest.

Regarding the photographers who cater to the middle classes, one finds all around the suburbs studios decorated in a way which would possibly strike the person of taste as being a little too ornate; but they have an air of prosperity, and suggest that the owners are securing a fair amount of the all needful. Of course there is a plentiful supply of the men who have no equipment and little ability to rise above their surroundings, and their lot must be pitiful; indeed, it must be a from hand-to-mouth existence, and I often wonder how some of them manage when they have weeks and weeks of fog in the winter and can do nothing.

This is a short account of my impression of London photography from an assistant's point of view. Whether an American with typical American work would do well in London is a question which only experience can tell. English photography is different from American, for the same reason, in my opinion, that French is from German, because the demand of the public is different in each country, and the photographer has to follow it up, and cannot himself create the public taste.

## CURRENT PHOTOGRAPHIC MATTERS IN AMERICA.

[Mr. H. Snowden Ward, editor of the *Photographic Monthly* and President of the Photographic Convention of the United Kingdom—the equivalent of our P. A. of A., and almost equally well known on both sides of the Atlantic—is visiting this country. He contributes an interesting account of his observations of things photographic to the *British Journal of Photography*, which we have pleasure in reprinting below.—Ed. W. P. M.]

Observations made on the fringe of a great continent (and the thousand miles between New York and Chicago or St. Louis, which limit my present trip, traverse no more than the fringe) must not be taken as applying to the continent as a whole, yet a few notes on things photographic, as actually seen, may have interest for British readers.

Perhaps the most notable fact is the prevalence of the ten-cent living-picture show. Cinematography has two magazines devoted entirely to its interests; such a city as Boston has scores of entertainment rooms, providing only living pictures and a few songs; greater New York has no less than five hundred and fifty buildings licensed for this form of display; and even such a little town as Nantucket, on the island of the same name, has its twice-a-night living-picture exhibition, the only periodical amusement supported by the population (in winter) of some 2500. This show is typical of many of the smaller ones in the greater cities. Given in a shop —of the long kind common in America— it has two great blackboards outside its windows, on which are chalked the attractions of the day. "Four long new reels and three new songs, Saturday." "The greatest entertainment ever offered

for ten cents"—such are the brief announcements. From shows of this class to the elaborately produced exhibitions in gorgeous theatres, all degrees are to be found, and all seem prosperous. But they are in some disfavor with the better class of citizens, who suspect that much of their popularity is due to risky and vulgar, if not actually immoral, suggestion in the pictures and the accompanying songs. This feeling came to a head on Christmas Eve in New York, when the Mayor closed every one of the five hundred and fifty exhibitions and let it be understood that their licences would only be reissued on written undertaking to comply with all the fire and panic regulations and the Sunday closing rules, and to omit from the programs all pictures detrimental to public morals. As many of the buildings are condemned by the fire department as being unsafe for public exhibitions, it is anticipated that about two-thirds will remain permanently closed, a very drastic use of mayoral power in the interests of public safety.

In the highest class of lantern shows are the lectures of a few men who have specialized for years and brought this form of exhibition to a very high state of perfection. Among the most successful of these is Dr. Dwight L. Elmendorf, an old-time member of the New York Camera Club, who was a painter before he became a photographer, and who has made many journeys to the beauty spots of the Old World with his camera and cinematograph. All his lantern slides are colored, and as they are specially prepared for this purpose, from the selecting of the view to the finishing of the slide, they are a strikingly beautiful set of pictures, totally different from colored lantern slides as known in England, even in the best days of the old colorists. With these slides, and with uncolored living pictures, Dr. Elmendorf attracts great audiences to the largest halls in such cities as New York, Philadelphia, Washington, Boston, and Pittsburg, working six or seven evenings and two or more matinées each week. The cities are worked in series, so that each will have two or three lectures a week for from three to six weeks, and often three or four hundred people have to be turned away from halls holding fifteen to eighteen hundred persons. Another proof in a small way of the popularity of lantern lectures may be found in the fact that when I lectured on "The Land of Lorna Doone" a few days ago in a school in a country village, over 40 per cent. of the whole population—or more than four hundred out of a population of less than a thousand—were in attendance.

At the time of writing Boston is the only city where I have had time for calls, and there two things are particularly striking: First, the important position of professional photography; and, second, the large number of strongly individual photographers. No British city of similar standing can show such a batch of men as Garo, Wesley Hearn, H. H. Pierce, and Parkinson. And few British studios are fitted on such a lavish, luxurious, wealth-evincing, and taste-evincing scale as the best of these. There is a suggestion that photographers are men of very ample income, and there is an unusual combination of artistic individuality with good commercial management. Making a memory comparison with the conditions of fifteen, ten, or even five, years ago, there is evidence of a great, a rapid, and a continuous improvement, an increase of success, and of the sense of the dignity of the profession. This is attributed by the photographers themselves very largely to the influence of the State Conventions, which have caused competitors to "get together," and to sub-

stitute coöperation for throat-cutting. It is the same work that is being attempted by our own P. P. A., taken up with enthusiasm and carried to great success. The result is that when I wrote asking for an appointment with one of these leaders, he replied regetting my visit was so exceedingly short, "or we would have got the boys together and had a little dinner." Another, when I called upon him, at once said, "Come along and see some of the other boys." The spirit is right, and its results are right, in spite of the fact that the millennium has not yet fully come, and that there are still complaints of "cutting" and unfair trading in certain quarters.

The Camera Club of Boston, one of the oldest in the country, is like most of the camera clubs in America, in being used for a much greater amount of serious photographic work than is usually done at the club-rooms in Britain. Its premises are planned, first, for working, not for meeting. An early morning call found a couple of amateurs collecting prints they had left drying over night; a professional lecturer, who, with his wife, was completing a set of lantern slides from the results of exposures made during the summer; and a professional photographer dealing with a sitter in the studio. No assistant or caretaker is left in charge; each member admits himself, and locks the door if he is last to leave; the studio and enlarging room are reserved by writing name and times in a book lying in the entrance-hall, and everyone seems to respect the property of the club, keeping it in good serviceable condition.

Apparently both the professionals and the amateurs are taking the Dresden Exhibition very seriously, and are preparing for such a display of American work as has never been seen on either side of the Atlantic. They not only mean to send, but also to go, to Dresden. Pirie MacDonald is arranging a party of professionals for the Continent, with a call in London; and Frank R. Fraprie, editor of *American Photography*, is planning a series of parties, all of them to tour in England on the way to or from Dresden, and one of them intended to include the week of the Photographic Convention in Canterbury amongst its engagements. I have assured them that they will receive hearty welcome from the photographers of the Old Country.

Another International Exhibition, having the highest possible artistic aims, is being planned for Buffalo, N. Y., as the result of an exhibition arranged there twelve months ago by the Photo Pictorialists, an advanced photographic society in that city. The work then shown had a convincing effect upon Dr. Charles M. Kurtz, director of the magnificent Albright Art Galleries in Buffalo. He had long been interested in and sympathetic toward the artistic efforts of photographers, and now was induced to discuss the use of the galleries under his charge for an exhibition adequately representing photography. The spring of 1910 has been provisionally arranged for the show in order to avoid clashing with Dresden, and it is hoped that the efforts of the Photo Pictorialists, supported by the world-wide connections of Dr. Kurtz amongst artistic circles, will lead to the assembling of a truly representative show, and even to the unearthing of talent which has hitherto remained unknown. It is intended that the bulk of the exhibition shall consist of prints individually invited; but there will almost certainly be a selected section, consisting of works chosen by an international committee.

The City of Buffalo, lying at the head of New York State, on the great steel highway to the West and North, on the border of Canada, within a few

miles of Niagara Falls, and in the centre of a web of railways radiating to every point of the continent, is most admirably equipped for carrying out a great international enterprise. It is a great centre of manufacture and of transport, at the foot of the Great Lakes system of navigation, and enriched by the tapping of the boundless power of Niagara. Its citizens are enormously wealthy, full of public spirit, and of pride in their great progressive city, and accustomed to welcoming conventions and congresses of national and international character. Their distance from the older centres of photo-pictorial politics is just sufficient to guarantee that the exhibition will not be controlled in the interests of any clique or "school," but will be on lines of broad, inclusive catholicity, while the equipment of the Albright Galleries and the personality of their conductor will ensure adequate treatment for all such pictures as are selected.

As it is sometimes interesting "to see oursel's as ithers see us," and to know what of all the doings in our own country seems interesting to the papers and the people of another land, I cut from an issue of the *Boston Herald* during Christmas week the only paragraph that I have seen since landing that deals with any phase of European photography. It says:

"We have seen trained fleas, and been glad they were where they were, but now flies have been impressed into service and a new interest given to the troublesome, disease-spreading companions of summer days. At the Royal Photographic Society of London last month trained flies were put through some curious feats by their educator. It seems that flies in a glass case learned, after repeated flying against the sides, that they could not escape. Some flies had been taught not to fly away when opportunity was given, and some had been trained to revolve wheels and roll balls and dumb-bells. The fly performs such work under the impression that it is walking on a continuous surface. But the fly always was a persistent, if not an 'amoosin cus,' as the humorist has said. Once taught a trick it will last forever. It is to be hoped that none of these trained flies will break away and begin performing on our defenceless heads next summer."

## ENSYNA.

ENSYNA is the trade name of a new printing process which has just been invented and put on the English market. It is a remarkable process from all accounts, and is creating a very considerable stir in photographic circles in Great Britain. It will possibly be on the market here within a few weeks, meanwhile a description of the process will be interesting. Its manufacturers make the following claims for it:

"Ensyna" is a new paper that will give prints like P. O. P. by artificial light. It requires no toning and no troublesome manipulation. A long range of beautiful tones are obtainable —from rich purple to warm sepia. The tone is entirely controlled by the exposure. No process could be simpler. Prints can be made by daylight or artificial light. No dark room, red or yellow light is required. The whole process—printing, developing, *fixing*, and *washing*—takes only five minutes.

Printing takes about one to five seconds by daylight or twenty to sixty seconds by gaslight. The prints develop up in about two minutes in beauti-

fully rich tones, giving results that are indistinguishable from the finest gold or platinum-toned prints.

Prints only require thirty seconds to fix, and two minutes' washing is all that is necessary before prints are hung up to dry.

"Ensyna" is a silver paper giving photographs that are absolutely permanent, with an image of pure metallic silver only.

"Ensyna" is not what is usually called a "gaslight" paper, although it can be handled by artificial light as well as by daylight. It is a new and distinct invention, and has no parallel in photographic history. Nothing so important has been put before the public since the introduction of P. O. P. nearly twenty years ago.

It is practically impossible for anyone to go wrong with "Ensyna" printing. If the correct exposure to daylight, for instance, is one second, the exposure can be increased twenty or thirty times and yet a beautifully rich print can be obtained. No flashing up of the image in the developer. The picture builds up gradually and definitely and loses nothing in the fixing bath.

Here, then, is a paper that produces the rich results of P. O. P. by direct development. It is easier to manipulate than gaslight paper. There is no uncertainty; the same tone can be produced an indefinite number of times, or a widely varying range of colors obtained without additional operations. The tedious washing is done away with, and the finished print is ready for mounting five minutes after the paper is put into the printing frame.

So much for the manufacturers' claims. Mr. R. C. Bayley, who has had some experience with the paper gives the following account in *Photography:* The introduction of a new printing process in Ensyna was an event which could hardly be dealt with adequately in a brief review of the paper itself. I have used a good many packets since that review was published, and if I am not more experienced in its use it is only because, as far as the making of straightforward prints from it is concerned, there is very little to learn. The operation is so simple that after the first few exposures one gets no farther, for the simple reason that things go right. It is failure that teaches, and failure with Esnyna does not come unsought.

There are certain peculiarities of the process which are likely to strike those to whom "physical development" is unfamiliar. Perhaps there are some among my readers who do not realize the difference between chemical and physical development; or who do not understand what is meant by those terms. If so, a few words of explanation will help to make what follows all the clearer.

In what is called "chemical development," which is the development process as we know it in the silver of plates, bromide and gaslight papers, the silver of which the picture is to be formed is in the place where that image will be. The whole surface of the bromide paper, let us say, is covered with an emulsion of silver bromide. When the light acts the developer changes that silver bromide to metallic silver, which is the material forming the picture. The picture, therefore, goes down into the coating of the paper, going deeper and deeper the greater the action of the light and of the developer. All the developer does is, in the exposed parts, to convert silver bromide into metallic silver. This is a "chemical" change, and so we speak of the development as "chemical development."

In "physical" development, on the other hand, the developer itself contains the silver which is to constitute the image in the form of a solution. It is so made up that it deposits this silver very readily. Those parts of the pic-

ture which have been impressed by the light seem to attract the silver to themselves, and so a picture is built upward on the surface of the paper rather than downward into its coating.

The readiness of the developer to deposit its silver is shown by the way in which it will "develop" any little dirt that there happens to be on the dish. This soon becomes black, and the corners of the dish in particular show a tendency to get black when developing Ensyna, revealing the fact that to start with they were not so clean as the rest of the dish. The best solution for cleaning these marks off dishes is made by dissolving 1 dram of potassium permanganate in a couple of quarts of water, and when it is dissolved adding 5 drams of sulphuric acid. This, as some readers will no doubt recognize, is simply the C or reversing solution used in the autochrome process.

The silver in the developer for Ensyna does not exist in the unused solution, however, but is in the coating on the paper itself, and is dissolved by the developer and precipitated again where it is wanted. In this respect the action is much the same as in wet plate work. It occurred to me very naturally, therefore, that it might be possible to get some advantage in this process by adding a little of a solution of silver nitrate to the developer, as was often done in wet plate work.

I have added as much as 1 dram of a 10 per cent. solution of silver nitrate to the ounce of Ensyna developer. Contrary to my expectation, it did not make development more rapid. It increased contrast, however, and gave the print a very much colder tone than when, with the same exposure, the silver nitrate was omitted. It became difficult to prevent the developer from staining the paper, and the solution soon turned black and thick. I cannot help thinking that there may be something to be done on these lines, and that with a printing process that will stand physical development, as this will, it ought to be possible in some such way to build up a strong picture from the merest ghost of an image, given by a negative too weak to be dealt with successfully by any of the ordinary printing processes.

As the silver in the developer is derived from the paper itself, and as the quantity of silver which can be dissolved by the developer is a limited one, it follows that the more developer we use for a print of a given size the weaker will be that developer. It is a case parallel, to some extent, to the development of Watalu plates, where, as is well known, the greater the quantity of water used the slower the development, because the developer is more dilute. It should be noted that the silver in Ensyna paper is not present in a form that is soluble in water, or the preliminary washing would not be practicable; but it is soluble in the developer. In spite of this fact the quantity of solution used with Ensyna, within reason, does not seem to make any difference in the time required for development.

For example, a print cut in half was developed in two dishes, with half an ounce and with two ounces of developer; but the action proceeded at an equal rate in the two, both halves were finished at the same moment, and the tone of both was the same. It is as well that it should be so, as were the color of the prints to depend in any way on the proportion of developer to print, it would certainly make it harder to secure uniformity in the prints.

These are a few notes gathered from my later experiences with Ensyna—a process which is of great interest, quite apart from its convenience in practical photography and the excellent prints that can be made with it.

## AT-HOME PORTRAITURE.

**[The following article is reprinted, by permission, from the "Self-instructing Library of Practical Photography." It is only a small part of the Chapter devoted to this subject, but is sufficient to indicate the quality of this great library.—Ed. W. P. M.]**

*Money-making Opportunities.* The first portraits made by the light of an ordinary home window were undertaken by the amateur to secure the likeness of the various members of his family. Usual opinions on the results were at that time anything but polite, but with unfaltering persistence the amateur has made himself the master of this branch of photography, and opened the eyes of the professionals to the money-making opportunities in the field of at-home portraiture. In many cases the studio is receiving secondary consideration, the professional making portraiture in the home the main feature of his work.

*Easily Mastered.* At-home portraiture is extremely fascinating and, although requiring a considerable amount of patience, as well as practical knowledge of the principles of lighting and composition, it presents no serious difficulties in securing excellent results. In fact, so delightful is a session of home-portraiture, with a suitable and sympathetic model, that one's enthusiasm almost always overcomes the numerous difficulties of posing.

*Modifications in Lighting.* No matter how carefully the lighting may have been made, some modifications of heavy shadows are at times necessary, otherwise the printed image would be exaggerated in one way or another, giving a greater amount of contrast than appears in the original.

*Effect of Color.* Then, too, differences in color lead to difficulties. The white of the dress will be rendered in a tone too bright when compared with the hands and face. Although color-sensitive plates may be employed to some advantage in securing the proper rendering of the values, the advantage is small unless a color-screen is also used. Then the exposure is so greatly prolonged as to make the work almost an impossibility. On printing the portrait negative it will be found that this difference in color (especially where freckles show as black spots, small lines appear as wrinkles, the cheeks seem hollow and the nose crooked) makes it necessary to pay special attention to the retouching.

*Character Destroyed by Retouching.* It is an easy matter to destroy character in the face, making it a mere expressionless mass. Even when you know just what you want to produce, you might not possess the required skill of hand to carry out the ideas by retouching. If you trust the negatives to someone else, even a professional retoucher, he may not be able to bring out the character lines as you have seen them on the ground-glass. For this reason the greatest of care must be exercised in making the lighting and in finishing the negative.

*Definite Aim in Portraiture.* There should be a definite aim in all photographic work, but especially in at-home portraiture, as it is necessary to plan and know just what effects you wish to produce before attempting to pose and light the subject. Your individual ideas will have everything to do with your final results.

*Setting Must be Harmonious.* It is quite essential that special attention be paid to the surroundings as well as the subject; for instance, it is entirely wrong to pose a subject against a background of strongly figured wall-paper,

which would detract from the subject rather than add to the value of the portrait. Frequently, portrait studies are so overloaded with curtains, pictures, furniture, and bric-a-brac that the entire omission of the subject would have been a very distinct artistic gain.

*Likeness of a Person.* Referring to Webster we find that a portrait is "the likeness of a person, especially of the face." It would certainly be a good idea to have these words emblazoned upon every camera. You should include in the portrait everything that will add to the likeness of the subject—omit everything else. In order to secure this effect study the expression and the natural pose of the individual. It may be necessary to include the hands, and sometimes even the feet; anything that will help to interpret character, leaving out all those features which tend to detract from it.

*Study the Subject.* Study the subject previous to making an attempt at posing before the camera; acquaint yourself with the subject's individual peculiarities, and, in posing, aim to reproduce as many strong characteristics as possible. Do not begin to "fish" for ideas on the focussing screen while the sitter is losing confidence in you and patience for the ordeal.

*Obtaining Ideas for Posing.* Many excellent ideas may be secured by looking over the various popular magazines, as they contain splendid studies made by the best photographic artists. If you will study these, many ideas will be presented which will lead away from the stereotyped forms of posing. It is sometimes a good plan to make a few rough sketches of favorite poses, some pleasing lightings or other details which you can study and impress on your mind. Arrange and re-arrange until the whole scheme appears quite clear to you. This preliminary study is quite essential, although many workers consider it as time wasted.

*Controlling the Light.* Why is it impossible to photograph a subject, with proper portrait effects, out in the open in the broad daylight? Why is it imperative that any particular form of lighting, or a special method of arrangement of light is necessary? Why is it impractical to place a subject next to a window, make an exposure and get good results? These questions all lead up to the one vital subject of lighting and the control of the light.

*Flat Effects Outdoors.* If a subject were placed out-of-doors in the shade, and an attempt made to photograph it, the resulting effect would be extremely flat owing to the unlimited amount of light that would come from all directions. There would be no particular points of light on the subject that would stand out more clearly than others. Of course, light draperies and light portions of the subject will reproduce light, and dark parts will be dark in the photograph, but there would not be any perceptible amount of relief or roundness shown in the finished print.

*First Steps Toward Controlling the Light.* True characteristic and pleasing effects may be produced out-of-doors, but it is necessary that some methods or means of controlling the immense expanse of light be employed; for instance, it is almost impossible to place the subject in strong sunlight and expect to get a pleasing result. It is necessary that the person being photographed be placed in the shade. As soon as this position is taken, action toward controlling the light begins, if the subject is placed on the shadow side of the house, and the house itself acts as a curtain shutting off the light from one side. Still a flood of light will come from the top, so it is necessary to go a little farther, and perhaps place the subject under a porch. Now two sides are screened from the flood of light, and if a background is placed at one end of the porch it would be possible to obtain a pleasing portrait.

*Flesh Effects Lacking.* Still there will be too much light uncontrolled, causing the face of the sitter to appear quite flat, with no possibility of flesh effects in the finished print, all the high-lights being hard and the shadows lifeless.

*Effect of all Side Light.* If the subject is placed in a room quite near a window, with opaque shades pulled down from the top until the light comes in only at the lower half, all shadows will be cast straight across the face; the side next to the light will be in very strong light, while the opposite side will be in very strong shadow. The effect produced will, therefore, be quite contrasty and not pleasing.

*Effect of all Top Light.* If the other extreme is resorted to, the lower half of the window being curtained with some opaque material and the upper half left open, the light will fall on the subject almost directly from the top, heavy shadows being cast under the eyes, nose, lips, and chin. The strongest light will of course be on the top of the head, the eyes will appear deeply sunken, and the whole result ghastly in appearance.

*Light Falling Properly.* If the light falls on the subject at an angle midway between these extremes, it illuminates both of the eyes, does away with the straight shadow across the face, follows the lines of the face, strikes the little prominences of the various features accentuating them, and the whole effect is one which pleases and delineates the better characteristics of the individual.

*Controlling Light.* From the foregoing it will be understood to be absolutely necessary that some method or means be adopted for controlling the light and enabling the production of any desired effect, although it is not necessary to have expensive paraphenalia.

*Diffusing the Light.* Even though the light may fall at the proper angle, there may still be deep shadows on the side of the face farthest from the light. The parts of the face receiving the strongest volume of light may be too white, so it is necessary that the light be further controlled. This is accomplished by placing a piece of thin cloth —such as cheese cloth or muslin—over the window softening the light; not only reducing the harshness of the high-lights, but diffusing the light throughout the room so that the shadows receive better illumination. This then reduces the amount of contrast and gives a softness which is unobtainable if the hard direct light is allowed to fall on the subject.

*Reproducing Character.* It will now be understood that lighting is the art of reproducing character in the subject by correct application of light and shade. We may go on indefinitely and speak of the methods of controlling the light to produce various effects, and to bring out the strongest characteristics of the subject, but as each subject requires individual treatment this is hardly practical. There are, however, general principles and rules which are applicable to all classes of individuals, it having been found by the master portrait painters that one or two particular forms or styles of lightings are best suited to the general class of subjects. The photographer who, to a certain extent, has copied after the painters, can also see at a glance that some certain form of lighting is best suited to each subject.

*Plain or Broad Lighting.* The lighting most universally favored is termed plain or broad lighting. This is a lighting in which most of the face is well-illuminated, with the light coming a trifle from the front of the subject and falling on the features at an angle of about 45 degrees. The face of the subject should be gradually turned from the source of illumination until the tip of the shadow cast by the nose almost touches the shadow on the shadow cheek.

By Kenneth Alexander, Millville, N. J.

By M. A. Blazier, Lebanon, Pa.

By M. A. Blazier, Lebanon, Pa.

By M. A. Blazier, Lebanon, Pa.

Portraiture with Accessories

By Dr. P. Cohn, Vienna

By Em. Fischl, Vienna

By Joh. Noack, Friedenau

By Hugo Erfurth, Dresden

1. Portrait
By J. C. Strauss

2. "Fräulein F."
By B. Buehrman

3. "Costume Study"
By Chas. H. Davis

4. Portrait
By Chas. H. Davis

*Illustrating Sidney Allan's Article*

5. Portrait
By H. Ziesemer

6. Portrait
By W. Kübeler

7. Portrait
By E. Walsleben

8. Portrait
By E. S. Curtis

*Illustrating Sidney Allan's Article*

9. Portrait
By F. Grainer

10. "The Rose" (painting)
By T. P. Anschutz

11. Portrait
By R. Dührkoop

12. Portrait
By R. Dührkoop

13. Painting by J. Lavery

*Illustrating Sidney Allan's Article*

# ON THE ARRANGEMENT OF THE SKIRT IN PORTRAITURE.

BY SIDNEY ALLAN.

A DELICATE subject, as it finds the photographer in a rather helpless position. A lady who comes to a studio to be photographed no doubt has taken special pains with her attire, and any attempt of the photographer to improve upon the same must necessarily seem presumptuous.

And yet it is very necessary in most cases. The skirt presents such a large plane in sitting and standing positions that its silhouette and leading lines form an important factor in the composition. I am willing to believe that most women can trust their own eyes when they are left alone before a mirror, but it is a different matter to assume a special pose under the skylight.

I suppose the easiest gown to take is a trim, well-preserved, tailor-made dress (Fig. 13). It has decided shape and line, and its graceful appearance in a picture depends entirely on the wearer. It is clinging material gowns with trains that make the trouble.

The ordinary skirt nearly always presents a quadrilateral or bell-like shape, whether seen in a standing or sitting position (Figs. 1, 2, 4, 5, 6, 7, 10, 12, 13). It is difficult to change this shape, except there is a train (Figs. 3, 8, 9) or the gown is long or voluminous, so that a part of the skirt can be used to modify and break one of the slanting outlines.

The lines of a skirt are rather unwieldy. There is not much strength to them unless the material is heavy (Fig. 2); they easily run in too parallel a direction as in Fig. 5, or become meaningless and commonplace as in Figs. 7 and 13. Clinging materials can be accentuated by the form of the body. This is always pictorial, but it produces a variety of planes rather than lines (Fig. 4).

Very little can be done with the ordinary skirt. The hands have come to the rescue to give a certain swing to the lines, or to break at least the monotony of a big uniform surface (Fig. 6). This can also be accomplished by giving one foot a higher support than the other (Fig. 5). This produces light and shade differentiation and changes the straight lines of the folds into curves. Another way is to apply a shawl as in Fig. 11, which if cleverly handled will break the monotony of the skirt. The difference of material, and the long narrow (more or less covered) shapes produced by the shawl will afford excellent opportunities for your arrangement.

Distinct patterns, flounces, tucks, pleats, insertions (Fig. 6), embroideries (Figs. 1 and 8), draperies (Fig. 3), or special embellishments like ribbons (Fig. 10), or raised ornaments (Fig. 4) will always prove of valuable assistance. But the greatest variety and the most pictorial effects are achieved by skilful lighting. The Grainer portrait is a very fine example. The stereotype lines, as seen in Fig. 7, are broken; there are deep shadows and strong highlights, and all the beauty of detail and texture has been preserved.

Two other good examples of sitting positions we find in Figs. 4 and 13. In Fig. 4 it is produced by a graceful twist of the body, by clinging material which accentuates the forms underneath, and the lines of the train. In Fig. 13 it is due largely to the differently colored flounces, and the bringing forward of the back of the skirt (which is always effective when it is full).

Of considerable import in all skirt

arrangement is the line produced by the hem of the dress. To shade the latter off with indistinctness (Fig. 5), or to cut into with the lower boundary line of the portrait itself (Fig. 11), are too effective. But they rather avoid the issue than make the most of it. If clearly seen, as in most of the pictures, it should be interesting in line. In Fig. 7 the line is too harsh, in Fig. 6 too dull and straight, and in Fig. 3 too compact. Good lines are presented in Figs. 2, 8, 9, and 12.

There is still another way to make the skirt interesting.

We are all aware that many women, consciously or unconsciously, use the skirt to accentuate a pose or to express an idea. Some claim that the face of the owner should be apparently unconscious of what is being done by the skirt. The others preach the exact opposite, and declare that the expression in the face and carriage should be echoed by the skirt. Let us investigate the matter a little more clearly.

"In sitting down, if a woman moves her skirt carefully (Fig. 7), it gives the feeling that she is careful and economical, but if with a swing of the hand she brings it together and throws it loosely around her knees, it produces the opposite effect (Fig. 9).

"Pressing the lower part of the skirt forward with the hands goes to create a slight depression in front, and gives the so-called girlish or playful effect (Fig. 2). If the front breadth is stretched smoothly across while one of the hands is on the hip, the effect is that of pride or hauteur (Fig. 1). Throwing the head backward and lifting the skirt with the right hand three or four inches from the ground denotes scorn or contempt. Lifting it three or four inches from the ground with the left hand denotes that the lady is about to make her departure, and that this is the preliminary good-bye.

"Lifting with two hands should be avoided. It gives one the feeling that the lady is going to wade across a marshy road in rainy weather, except in costume pictures (Fig. 10). It is never necessary to reach down low in lifting a skirt, and when done it is always awkward. A graceful woman will reach as far back as possible, and then instead of raising up, bring the hand around toward the front. This movement lifts the skirt to any desired height, and is always neat and effective.

"If one has pretty feet nicely booted, the skirt might be raised in front above the instep, but not to the edge of the uppers. The feet should be suggested rather than exhibited. When they are allowed to peep out it is coquettish; when they are shown it is vulgar."

A train is always effective. It isolates the wearer from her surroundings and gives her figure repose and dignity. In wearing a train the carriage should be erect and well-balanced. To let the train simply trail is the least effective way of showing it (Fig. 11). Also, the placing of it sideways offers no particular pictorial possibilities (Fig. 3); at least not in a full-face view. Fig. 11 would be greatly improved by it. Fig. 2 shows what a slight twist may accomplish. The bringing foward of the train (Fig. 1) presents the most popular arrangement. It always presents the same problem of a diagonal line and a triangular shape cutting into the large quadrilateral plane (Figs. 1, 4, and 11). The most picturesque management, however, is offered in Figs. 8 and 9, when the skirt by some bold sweeping lines, or by curves and contrast (Fig. 9), loses its conventional shape.

This is the law in all efforts of composition; stick to the conventional accepted form if you cannot do any better, and make the most of it; but if you possibly can, elaborate upon it and produce a new variation that will be pleasing to the eye.

## THE EXECUTIVE OFFICERS OF THE P. A. OF A.

BELOW we have much pleasure in reproducing a capital portrait group of the executive officers of the Photographers' Association of America, who held their annual executive meeting at Rochester, N. Y., some few days ago, the report of which is printed elsewhere in this issue. Our picture is a reproduction of a photograph made by Mr. J. E. Mock, of Rochester—himself an energetic and enthusiastic conventioner.

To most of our readers the faces are all familiar. Reading from right to left we have: President, Frank R. Barrows; Secretary, G. W. Harris; First Vice-President, A. T. Proctor; Second Vice-President, J. H. C. Evanoff; Treasurer, L. A. Dozer, Bucyrus, O.

Executive Officers of the Photographers' Association of America.

With such a highly efficient and hard-working group of officers all things are possible, and we have every reason to expect an unusually great gathering at Rochester in July.

President Frank R. Barrows has all the making of a great President. For eight years he has served as Treasurer of the Association, and has a greater insight into the practical running

of a National Convention than any other member of the Association. To him in a very great measure is due the strong financial position in which the Association finds itself today. His unfailing courtesy and tact have endeared him to the hearts of every member of the Association. We are confident that his requests for help and coöperation will meet with a hearty and ready response.

Mr. A. G. Proctor, now serving his third term as Vice-President, has won, in his quiet and unassuming way, the respect and good-will of every member of the Photographers' Association of America. He has had considerable experience in Convention work, and is a past-President of the Photographers' Association of Pennsylvania. He hails from Virginia and is a southern gentleman in the truest sense of the word.

Mr. J. C. H. Evanoff, of Salem, Mass., is another man of wide Convention experience. Secretary of the National last year—with much success and a former president of the Photographers' Association of New England, he can be relied upon to give a good account of his share of work. He, with President Barrows, will no doubt see that New England sends a large and influential delegation to Rochester.

Mr. G. W. Harris, of Washington, D. C., is a splendid choice for Secretary. As a great believer in system in the studio, his special training along this line will be of the greatest help in his difficult task. His last two predecessors have set a high standard of efficiency, but if there are any improvements to make in this important office we feel sure that Mr. Harris is the man who will make them.

Mr. L. A. Dozer, of Bucyrus, Ohio, is an old and tried member of the Photographers' Association of America. We have known him for many years, and are confident that in him the Association has found a worthy successor to its late treasurer.

Such officers are capable of producing the greatest results if they have the active and enthusiastic support of the members of the association. Every man who voted these gentlemen into their positions is under a moral obligation to assist them in every possible way in their endeavors to make the 1909 meeting an unqualified success.

## REPRODUCTION OF NEGATIVES BY THE POWDER PROCESS.*

BY E. W. FOXLEE.

THE powder, or "dusting-on," process of photography is an exceedingly interesting and at the same time a very useful one for some purposes, one of which is the production of reversed negatives—that is, reversed as regards right and left, such as are necessary in so many of the mechanical processes. One of its chief advantages in this direction is that the reproduction is made direct from the original negative without the necessity of an intermediate transparency. Another is that of expedition, as it is quite possible to produce a reversed negative from the original one well within an hour of its receipt. Still another advantage is that the reproduction can, in many cases, be made much better than the original; for instance, it may be made either more vigorous or softer and more delicate, as occa-

* From Penrose's Pictorial Annual, 1908–09.

sion may require. Furthermore, by local treatment, for which there is much scope, hard and crude lights may be softened, while weaker portions may be strengthened, and thus from an inferior negative a much better one may be secured. The fineness of the detail, and the delicacy of the tones, are really surprising when a pigment in a fine state of division is employed, and the best for our present purpose is plumbago, such as that used in electrotyping. What is more, the very deepest shadows of the negative are represented by absolutely bare glass, even though they may be veiled in the original. This, as most of us are aware, is a great desideratum in photomechanical as in all processes where bichromated gelatine is concerned.

The powder process, it may be explained for the benefit of some of my readers, is based upon the well-known action that light has on bichromated colloid substances. In the carbon and similar processes it is to render the gelatine insoluble in water at such a temperature which, but for the action of light, it would freely dissolve. In the collotype process it is to render the gelatine film non-absorbent of water in proportion to its action, so that it takes on a fatty ink in proportion that it has not absorbed water. In the powder process the same principle obtains, but in a somewhat different way, in practice. For example, in the processes just referred to it is the parts that are acted upon by light that form the darks of the picture. In the powder process it is just the reverse. Here it is the parts that are protected from it that form the darks, while the exposed ones form the lights.

In the practice of this process a surface is prepared, which in itself is in a somewhat hygroscopic condition and in a more or less tacky state, so that if it were rubbed over with a powder in a fine state of division it (the powder) would adhere evenly all over. But if, before the powder was applied, the surface was exposed sufficiently long to light, the tackiness would become destroyed and the pigment would not adhere anywhere. If, however, certain portions are protected, as they are when exposed under a negative, then the powder takes only in proportion as those parts have been protected. Hence it will be seen that if we require a positive picture we must print from a transparency, and if a negative we must employ a negative when, of course, the reproduction will be reversed as regards right and left. The chief use that is now made of the powder process is in ceramic photography—obtaining images in vitreous colors for firing into enamel or other plaques.

Who was the actual inventor of the powder process I am unable to say, but early in the year 1860 one M. Joubert, then a photographer in Bayswater, obtained a patent for producing photographs, fused into glass, by the powder process. In the early seventies a good deal was written in the German photographic publications, the *Photographische Correspondenz* in particular, on the powder process, much of which was reproduced in the English journals at the time—especially in the *Photographic News*. I will here make a brief quotation from the pen of Herr Obernetter, of Munich, at that time one of the most successful workers of the collotype process. I do it merely to illustrate the commercial value of the powder process, as the writer is one whose testimony may be relied upon. This is what he says: "By practically working out the method in my own studio and employing it in my business, I have succeeded in rendering the *modus operandi* very simple, and may say with a good conscience that the process is really

to be recommended. In my own business the process has been constantly worked for three years and upward of 2000 negatives have been reproduced by it, and may be viewed by anyone interested. The largest cliché has a diameter of 70 cm." From about 1874 comparatively little has been published on the process, and it has received but little attention since that period. Why this should be the case, considering its utility, is difficult to see. Possibly, however, the reason is that at that time there was but little use for it, as photo-mechanical processes were then quite in their infancy. Without digressing further I will now describe the method of working the process. First, as regards formulæ. Of these no end have been published, and widely different they have been. I shall here quote a selected few:

No. 1.

| | |
|---|---|
| Dextrine | 2 drams. |
| Sugar candy | 2 drams. |
| Bichromate of ammonia | 1 dram. |
| Water | 8 ounces. |

No. 2 (Obernetter's).

| | |
|---|---|
| Gelatine | 1 gram. |
| Gum Arabic | 2 grams. |
| Sugar | 8 grams. |
| Water | 150 grams. |
| Bichromate of ammonia | 4 grams. |

No. 3.

| | |
|---|---|
| Gum arabic | 4 drams. |
| Glucose | 10 drams. |
| Honey | 2 drams. |
| Water | 10 drams. |
| Alcohol | 1½ drams. |

For use, one part of this is mixed with two parts of a 10 per cent. solution of bichromate of ammonia.

No. 4 (taken from Mr. Ethelbert Henry's work on ceramic photography).

| | |
|---|---|
| Fish glue | 1 ounce. |
| Glucose | 4 ounces. |
| Glycerine | 10 drops. |
| Water | 10 ounces. |

For use, equal parts of this and a 10 per cent. solution of bichromate of ammonia.

I have only quoted four out of the many formulæ that have been published, and I have selected these more to illustrate the wide differences that exist in them than anything else, as well as to show that the formula can be greatly varied without making much practical difference in the results obtainable. It is possible, however, that they may sometimes require a slight modification according to the hygroscopic state of the atmosphere. For instance, in a damp and humid air a small proportion of the glycerine, honey, glucose or such like substances, may be omitted with advantage; whereas in abnormally dry weather they may be slightly increased, though as a matter of fact in practice any alteration whatever is rarely required.

With so many and varied formulæ before us it may well be asked which is the best? There is really no best, and I have got satisfactory results with all the above, as well as with several others. The solutions when mixed with the bichromate will keep good for several days. But I prefer to keep that separate and mix it with the colloids only as required for use. Without the bichromate the colloid solutions, if a drop or two of carbolic acid be added, will keep good for months and so will the bichromate solution. On the whole, perhaps, the No. 3 formula is the one I personally prefer.

Now for the manipulations. A glass plate is cleaned in the usual way and is then flowed over with the solution (after it has been filtered) as in coating with collodion and drained off. This of course must be done in a subdued light. The coated plate after, not too close, draining is then dried before the fire, or at some distance above a ring Bunsen gas burner. In the drying the plate should not be made actually hot—only tolerably warm, such as the hand can conveniently bear. While still warm it is exposed under the negative. The

time required, of course, depends upon the light as well as the density of the negative. As a rough guide, however, with an average negative, from three to six minutes in bright sunlight will be about right. There is, however, very great latitude allowable, as any errors within reasonable limits may be remedied in the development. When the plate is taken out of the printing frame it should show a distinct, though not strong, image when held over white paper. After it is taken out of the frame the plate is again slightly warmed and then laid on a piece of white paper. Then, having ready a flat camel's-hair brush, say, an inch one—as well as a small "camel's-hair mop"—a little plumbago is evenly brushed over with the flat brush, and by its behavior, when the plate has become cold, it will quickly be seen if the exposure has been about right. If the plumbago takes at once kindly to the high-lights and more slowly on the shadows, it may be fairly assumed that the exposure has been fairly rightly timed, and the development may be continued until the desired density is secured. If, however, it does not seem to take at all, that is an indication that it is overexposed—still the negative need not be lost. If the plate, after dusting off the plumbago, be put into a damp place for a few minutes the film will absorb moisture and become tacky and then take on the color. Or the plate may be breathed upon, once or twice, when the moisture absorbed will render the film tacky so that the pigment will adhere. In no case, however, when a plate has been breathed upon to give it moisture, should the plumbago be applied at once; it should be allowed to rest awhile for the moisture to equalize, otherwise brush marks will show when the development is continued. If, when the plumbago is first applied, it shows a tendency to take all over it indicates that the plate has been undertimed. In this case the powder should be dusted off and the plate warmed so as to drive off moisture. Even with considerable underexposure, if the film be kept fairly free from moisture, and the color is applied more liberally to the lights than to the shadows, a good reproduction may be obtained. It should be kept in mind that full exposure tends to a vigorous reproduction, overexposure a hard one, and underexposure a thin and delicate one with a tendency to fogginess.

Now, supposing one has an inferior original to deal with—say, one of a hard character, having strong lights with faint printing detail in the shadows; yet with such a negative it is quite easy to get a harmonious one from it. In this case the plumbago is dusted off from the lights with the larger brush and for a time applied locally with the mop to the shadows until they are nearly strong enough. Then the pigment is again applied evenly all over with the large brush until enough vigor is secured. Should the color, through too full exposure, not take sufficiently to the shadows those portions may be locally moistened by gently blowing upon them through a paper tube, after the manner often adopted by collotype printers. In the development of reproduced negatives by the powder process they must not be made too dense, as the plumbago is a more non-actinic pigment than many would surmise; added to that, if all has gone well, the deepest shadows are represented by absolutely bare glass, such as one gets in good wet collodion negatives.

The image having been fully developed, the loose powder is dusted off. We have now got to get rid of the unaltered bichromate and colloids. In some instances, however, they will do

no harm if left in the negative, but when that is done the plate should be exposed to strong light for a time so as to destroy the tackiness of the film. However, the best way is to get rid of them altogether. The way of doing that may seem to some a formidable job, but it is not really so after a very little practice. This is how it is done. The negative being perfectly dry is thickly coated with an enamel collodion, which should preferably be an extra thick one. It is then allowed to rest until the solvents have well evaporated. The film is then cut round the edges of the glass. The plate is then put into a tray of cold water, to which a few drops of hydrochloric acid have been added. In a few minutes the film will become loosened at the edges, and by gently rocking the dish backward and forward it, to which the pigment holds firmly, can be floated off the glass. By this time the whole of the bichromate and the soluble colloid will be dissolved out. The water is then drained off and the tray refilled once or twice. The glass is then withdrawn, washed, and put back again to receive the film once more. It will be manifest to all that as we have got the negative off the glass we have the option of making it either a reversed one for mechanical purposes, or a right way about one for ordinary printing. If the former is desired the film is put back on the plate as it was originally; if the latter, it is merely turned over so that the collodion side is next the glass. The film is floated in position on the plate and adjusted, if necessary, with a flat camel's-hair brush. But when a little knack is acquired the brush is rarely necessary. The film can easily be moved, or rather floated, about on the glass by always having a good layer of water between it and the plate. When got into position the film and the plate—taking care that there are no air bells between them—are held at the corners between the thumbs and fingers, and then *slowly* and *evenly* withdrawn in contact. If the film should anywhere appear in puckers they can be stroked out with the camel's-hair brush. The whole is then stood up on end to drain for a short time, but not allowed to dry. It is then flowed over two or three times with a weak solution of gum arabic, say, one part of gum to six or eight of water. In flowing this over special care should be taken that the edge of the film on the glass are well covered, otherwise, as the negative dries, there may be a tendency for it to curl up at those parts. When dry the negative can be varnished or used as it is. It may well be mentioned here that with a stripped collodion film there is no expansion or contraction as there is with gelatine ones. It keeps the same size throughout the operations, and that greatly simplifies matters.

Some who have not tried it may imagine that a collodion film, when off the glass, is a very difficult thing to deal with, but it is not at all so after a little knack has been acquired; then negatives of such sizes as 12 x 10 are easily manipulated. Obernetter speaks of working sizes up to 70 cm.—equal to about twenty-eight inches English.

In practice the powder process is an exceedingly simple one to work, as there is no trouble to be anticipated from the chemicals as there is with many other processes. But it will be to some who may try it an entirely new one, and therefore require some little learning. To beginners I would say, select your formula, and any of those quoted above may be relied upon, and stick to that one until you have become proficient with the working of the process.

## PHOTOGRAPHING PHOTOGRAPHS.

ONE of the failings of some professional photographers is their inability to adapt themselves to any kind of work that offers. They will sit round and wait for someone to come in and have their portrait made; when there are not many sitters they complain of a slack season. There are many ways of making money out of photography apart from portraiture. Restoring and copying old daguerreotypes; copying photographs will help out a dull season for the resourceful photographer.

A method of photographing photographs was given some time ago in *Photography* by F. E. L., and is worth trying.

The copying of a photograph is a task which photographers take upon themselves at some time or another, and over which full many of them come to grief. It is a very different thing from making a negative of the original subject, and experience obtained in landscape or portraiture is not of much service when it is a photograph itself that is to be photographed. Still, unusual though it may be, it is perhaps all the more interesting, while the control which one has over the strength and nature of the light makes it very easy to correct errors and, when a few trials have been made, to avoid errors entirely.

### *Preliminary Arrangements.*

The preliminary arrangements in copying have often been described, and it is not my intention to repeat them. They call for no special remark. Everyone who has ever taken a photograph would know that to copy one the original should be fixed up firmly in a good light and strictly square with the back of the camera; that it should be focussed sharply, the lens used at as large an aperture as will give the necessary definition, and a correct exposure given. But a few remarks on one or two of these heads may not be time thrown away; and first as regards the fixing up of the original.

### *Copying from a Book.*

If this is mounted in a book it may not be easy to keep this flat without using glass, and glass gives rise to troublesome reflections. If the whole page is not to be photographed, and the book is not too large, a piece of stiff card may have an opening cut in it to allow the picture to show, and the book may be put behind the card and pressed closely up to it. It is sometimes possible to do this by putting the card in a printing frame and using the springs of the latter to give the required pressure. If it is simply a print mounted on a card it may be pinned on a drawing board, and it may be pointed out that in so doing there is no need to stick the pins through the mount. They will hold it quite as firmly if put in close beside it and pushed right home, so that the flat head of the drawing-pin grips the card against the board. Focussing is certainly made much easier, though it is hard to say why, by putting the original upside down on the board, so that it comes the right way up on the focussing screen.

### *Avoiding Grain.*

One of the troubles in copying is caused by the grain of the paper, which is almost always intensified in the copy. This is reduced very much, if it is an

unmounted print that is being copied, by wetting it and putting it face downward on a clean piece of glass, and sqeegeeing it into contact all over. When a photograph and design are being copied together, as is often done by amateurs who make their own Christmas cards, there is no need to mount the print on the design—in fact it is better not to do so. Instead, the position it is to occupy is marked, the design is drawn or sketched, and then a piece of glass with the photograph squeegeed down on it and dried is taken and the design is pressed close up to it, so as to appear from the front as if the print were mounted in position. If the design is on a card or drawing paper of a rough surface, this method is very effective, as the roughness of the paper helps to soften down the design, while the print itself is quite flat and sharp. But in such a case reflections must be looked for and avoided.

### *The Position of the Light.*

The illumination of the copy is a most important factor towards success in copying. First the lighting should be as intense as is conveniently possible; a good vigorous copy is a very difficult thing to get in a feeble light. Then the light should fall as much as possible from the front. Side lighting exaggerates the grain of the paper, because every little hillock on the surface throws a shadow. If sidelight is unavoidable, then it must be equalized as much as possible. If daylight is being used, the best way of doing this is to put a mirror on the side farthest from the light, and as near the copy as possible, and turn it so that it strongly illuminates it. For copying photographs under glass this is one of the best arrangements, as with it there is very little trouble from reflection, the camera itself being comparatively in shadow. When artificial light is being used, such as lamps, it can be equalized by using two lamps, one each side of the subject, or by exposing for half the total time with the lamp on one side, and for the other half with it on the other. The most even illumination in daylight copying is got by placing the camera at the window, with its lens pointing into the room, and fastening up the subject in front of it, facing the window squarely. But if the camera is very near the copy, its own shadow may fall on it and interfere with even illumination. Some workers copy by means of magnesium ribbon, moving the ribbon from side to side and up and down to equalize the illumination.

### *Some Hints on Focussing.*

Focussing is a matter which puzzles the photographer at times, for he finds he cannot get his copy sharp. The reason for this is simply that his camera will not extend far enough for him to get the copy on so large a scale. His best plan is to rack the camera out as far as it will go and then gradually move it farther and farther from the copy, until he finds a position where the image is sharp. That is then on the largest scale he can get with it, and if he wants to get the image of the copy still larger he must use a shorter focus lens, or must add a magnifier to his lens for the same purpose, or must get a camera with more extension. Unless it is important to get the result exactly to some scale, it is always better to do the final focussing by moving the camera nearer to or farther from the object, rather than by racking in and out, especially when the modern landscape pattern of camera is used, since in this the focussing is done by the front carrying the lens being moved to and fro,

so that any movement of the rack and pinion to focus not only alters the distance of the ground glass from the lens, but also of the lens from the subject. In copying where the camera is relatively near the subject, this makes a great deal of difference, although for landscape and similar work it is quite unimportant. With such cameras it is almost impossible to focus a copy on a large scale, except by moving the camera, so great is the trouble from this source.

*Exposure—Some Definite Data.*

Exposure is the most important part of all in copying, as in most other forms of photography. Nor is there any royal road to success with it. Those who use the Watkins meter will find that as long as they are copying by daylight they will have very little trouble; but by artificial light the meter is of no use, and other methods must be employed. The following exposures are taken from my exposure note-book, and are each marked "correct"—that is, added after development—so that they may be used as a basis on which to work by those who, like myself, find it necessary to employ artificial light. I might perhaps add that if the table given in the Watkins *Manual* is to be used, and the subject is a black and white design, together with a photograph, the exposure must be calculated for the photograph and not for the black and white design. This is important, as unless the photograph is correctly exposed its tones will suffer irretrievably.

Copying P. O. P. print on buff card. Five inches R. R. lens, stop marked *f*/8. Subject sixteen inches from lens. Exposed by one two-wick paraffin lamp with chimney, but without globe; lamp eighteen inches from subject. Exposure twelve minutes.

Copying P. O. P. print, under glass. Eight inches R. R. lens, stop marked *f*/16. Subject thirty inches from lens. Exposed by two two-wick paraffin lamps, without globes; lamp twelve inches from subject. Exposure twenty minutes.

Copying line drawing and platinum print mounted on it. Five inches R. R. lens, stop marked *f*/8. Subject fourteen inches from lens. Exposed by two two-wick paraffin lamps, without globes; lamps twelve inches from subject. Exposure three minutes.

These exposures were made on Imperial special sensitive "Orthochrome" plates, backed—a brand which I should not select in the ordinary way for copying, as I think slower plates are to be preferred for that purpose. But when copying by artificial light, their color sensitiveness and rapidity are decidedly useful. The lamps were of the ordinary double flat wick type, and were placed close to the camera, a card being used in the second case to cut off all direct light from them from reaching the lens. These exposures are only intended as a general guide, and are subject to modification from many causes.

*The Development of Copies.*

Little remains to be said about development. My own preference is for pyro-soda (full strength), and applied for a full time. In fact, in copying work the exposure and the development should both err, if err they must, on the full side. At the same time please let it be understood that I am not advocating pyro-soda. The photographer who changes his developer just because he has changed his subject can never hope to do much. But, whatever the developer may be—and I cannot think one is likely to be better than another for the purpose, provided both are clean working and not too slow—let it go on long enough. The surface of the plate as it lies in the

developing dish, when development is finished, should only show the barest outlines of the subject, if at all, where this is a photograph. If it is a line or black and white subject the black parts should be decidedly bronzed over on the upper surface, and the white parts should show distinctly dark on the glass side of the plate. This cannot be got unless the exposure has been ample.

## MOVING PICTURES IN NATURAL COLORS.

BY G. ALBERT SMITH.

THE large lecture theatre of the Royal Society of Arts in the Adelphi was crowded to the walls on Wednesday in last week, December 9, when Mr. G. Albert Smith lectured upon and demonstrated the process of two-color cinematograph projection, which has been worked out by him, and has been alluded to in past issues of this journal. Since last December, when we wrote ("B. J." "Color Photography" Supplement, December 6, 1907) as the result of a visit to Mr. Smith's laboratory, the process has passed from the experimental to the commercial stage, and those who, like ourselves, have seen the first results obtained by the inventor will agree that we were warranted in predicting, a year ago, the perfection of the process to a degree at which it becomes of every-day service for instruction and entertainment.

We have just described Mr. Smith's process as "two-color," but it must be borne in mind that the phrase applies only to the method adopted, namely, the use of two taking and two projection filters; in other words, to the making of the color record positives in pairs instead of in sets of three, as in the customary three-color process. As the audience at the Royal Society of Arts saw for themselves, the two-color method proved itself capable of giving a range of colors equal to that of a three-color process, as was seen from a comparison of autochrome records of posed subjects and the cinematograph version of the same figures in motion. And the best of the pictures shown on the screen, particularly some of a harvesting scene, of a yacht race, and of a girl playing with pet rabbits, showed the fine rendering of colors, and especially of neutral greys, etc., which the two filters of Mr. Smith gave. Not only this. A series of three-filter is found by Mr. Smith to make too great demands on human persistence of vision, when, as in the Smith system, the separate positive color-records are projected in rapid succession on the screen and combined in the eye of the observer. This system, the lecturer pointed out, was the one which had been found practicable after a trial of methods involving registration of three pictures. The conclusion to be drawn from the part of Mr. Smith's paper, which we reprint below, dealing with the alternative methods in natural-color cinematography, is that a two-record process appears to be the only practicable solution of the problem, and such certainly appears to be the case, excepting that a "screen-plate" color film, if obtainable of sufficient rapidity, would equally well respond to the commercial conditions under which the natural-color cinematography has to be done. With these comments upon the most convincing and beautiful demonstration of the success obtained by Mr. Albert Smith, we will quote,

with some abridgement, the more technical portion of the paper, the full text of which is published in the *Journal of the Royal Society of Arts* for December 11, 1908:

The three-color principle having been proved by numerous lines of demonstration to be a sound working theory, it would naturally suggest itself as being applicable to animated pictures; and, judging by the records of the Patent Office, there are plenty of people who have thought so. But it is to be feared that in the rush to the Patent Office the details of experiment and trial have generally been overlooked.

Some years back (1902) I was invited by Mr. Charles Urban to assist in a thorough trial which he was making, regardless of reasonable expense, of a three-color process applied to the cinematograph. At that date very little was known about the possibilities of sensitizing film to red and green, and to that extent we were handicapped, although we had very expert assistance. Nevertheless, in good sunlight we did succeed in taking a few negatives in which the three colors were duly recorded. It was when we came to superimpose the pictures on the sheet through three-colored glasses that we found the process unworkable. As soon as the handle of the projecting machine was worked the three pictures refused to remain in register, and no knowledge that any of us could bring to bear upon the matter could even begin to cure the trouble. I do not know whether any other workers, if there are any, succeeded where we failed; but if they did succeed, the public have never, so far as I am aware, been permitted to see the results. The difficulty is mainly due to the fact that cinematograph pictures are small to begin with (about the size of a postage stamp), and they have to be enormously magnified in exhibiting, as you all know. The slightest defect in registration is pitilessly magnified, and when the minute defects of registration in the first three pictures are followed by minute defects of another sort in the next three, and by yet another sort in the succeeding three, and so on throughout the length of a film, the effect on the observer is almost unbearable.

### *Three-lens Systems.*

A plan much recommended, and much patented, I believe, is to use three lenses in taking the negatives, with a color filter behind each, and to use a similar contrivance with three lenses and color filters when projecting, adopting one of the usual contrivances to superimpose the images issuing from the three lenses. Whether the persons who advocate and patent this plan ever descend to the trivial detail of trying it is unknown, but when Mr. Urban and I tried it with carefully made machinery, the results were astonishing and painful to behold. It becomes evident on trial that the three pictures taken through the three lenses, however close the proximity of the latter may be, are slightly different from each other, and the attempt to superimpose these slightly different pictures when they are highly magnified, results in unbearable confusion.

### *Three-color Pictures.*

The next idea we worked upon was to abandon the attempt at mechanical registration of the three pictures, and to run the films through the projecting machine at such a speed that the colors on the revolving shutter would combine and so give the desired effect by persistence of vision. This was successful, but the colors were washy and ineffective. In fact the colors were so pale that, considering the amount of film

used up (three times the usual number of feet per subject), and considering that the problem of exposure was made three times as difficult, the experiment assumed a less hopeful aspect. The death of the original patentee put a further damper on the inquiry, and the experiment finally dropped.

### *The Commercial Condition.*

During the last four years, with the support of Mr. Charles Urban, I have renewed the inquiry to the seclusion of almost all other work. I have concentrated attention specially upon four points: (1) Sensitizing the film to *all* color waves, specially pressing the sensitiveness as far into the red end of the spectrum as possible; (2) superimposing the color records by persistence of vision; (3) compressing the color records into a less number than three, so as to give the least possible interval of time between successive presentations; (4) to conform to the condition that any scheme must be easily applicable to the existing cinematograph machinery, and that the standard film with standard perforations must be used, so that any successful results might be readily adopted by every cinematograph user without very much trouble or expense.

The first of these lines of inquiry (sensitizing) has been already referred to; it simply consisted of repeated trials and experiments day by day for a year or more until the required conditions for sensitizing emulsions for cinematograph work were better understood. The third line of inquiry, that of reducing the number of pictures in which the color waves could be recorded in a monochromatic scale from three records to two, also resolved itself into a matter of repeated trial. For, in addition to deciding upon the particular shades of grey deposit which should be adopted as the equivalent of particular colors, the variations of different emulsions in yielding these greys had to be taken into account. The final deduction from the experiments under the third heading was that, proceeding from the red end of the spectrum, all rays from dark red to blue could be recorded in proportions which our eyes accept as sufficiently truthful through two filters only.

If we ask individuals to set down the principal colors of Nature, placing them in order of luminosity or brightness to the eye, the average of the lists will be as follows: White, yellow, orange, red, green, blue, violet, indigo, black.

Now, reference has previously been made to the unfortunate fact that photographic plates or emulsions do not see as we do; thus to the plate blue and violet came at the top of the scale next to white, and not at the bottom end as they do in the luminosity scale. I find that it is possible with two carefully adjusted filters to pass to the sensitized plate or film colors in proportions parallel to the above order. Through one filter I pass white and yellow, then on through orange and scarlet to the darkest red I can sensitize for. Through the other filter I pass white and yellow again, as these two are at the head in luminosity and require fullest representation; then on through green, blue green, blue and violet in the proportions suggested by the above luminosity list. The aim is to secure, by a careful adaptation of filters to emulsion, a record of color luminosity stated in graduations of tone from white to black through a scale of greys, this scale being fully represented in two successive pictures.

I take the pictures with an Urban bioscope camera fitted with the required filters to come into action alternately. One film only is used, of the usual

standard size, and I take the pictures at the rate of not less than sixteen per second through each filter, or thirty-two pictures per second in all.

When the negative record has been duly developed, and a positive transparency made from it, this positive transparency represents, by its gradations of tone from white to black in each successive pair of pictures, not only a record in form and shape, but it also acts as a filter or sifter of light; for when it is passed in the path of rays of colored light it will screen or filter them so as to reconstruct for our eyes the various proportions of color luminosity which were present in the scene when the record was made.

*Taking and Projecting Filters.*

I have said that the photographic record now obtained is to be placed in the path of color rays, which rays are to be sifted by the travelling record so that the required amounts of color reach the projection sheet in due proportion. The question now is, What rays of color are we to use? Apparently, we must use the same colors that we used as filters in the camera, and in fact we may do so with pleasing results. But theoretical critics will point out that, owing to the unfortunate oversensitiveness of the film to violet and blue, we must, of necessity, have cut these colors down to such an extent in our camera that if we use the same filters for reconstructing color for the human eye, their absence will be sorely missed—our whites will be so deficient in blue and violet that they will not be white at all, but orange or yellow.

One reply to this contention is that white is very largely a comparative sensation. What we agree to call white in a painting, for instance, is often quite different from what we agree to call white in another painting if we take steps to compare the two "whites" with one another. One may be yellowish or greyish compared with the other, yet both are white enough in their proper place in the picture, when surrounded with colors in proper "key," as it were, to them. Again, the whitest of paper will look yellow when compared with the purer white of fresh fallen snow. Therefore, our whites produced by the mixture of colored lights may possibly be somewhat yellow as a matter of spectroscopic reality; but if the human eye accepts them as white by comparison with other colors in the same picture, we need scarcely bother our heads further.

But another way of meeting the critical objection that the analytical filters of our camera are necessarily too deficient in violet and blue to give a proper rendering of color when used as synthetical or reproduction filters in projection, is to introduce the missing beams of violet and blue into our projection instrument, and so make ourselves practically secure of the white, or "all-color light," required on theoretical grounds. This I find it an advantage to do; and if you examine the light emanating from the projecting machine when lighted up and at work, you will see that beams of red and green are alternately issuing from the lens, and that these beams have added to them by means of a supplementary shutter just those proportions of violet and blue required to make a pure white when all are mixed. Thus we have light on the sheet for our whitest objects which contains, as it should contain to conform to theory, every color of the spectrum from dark red to violet.

There are some persons so obsessed with the idea that three is the magic number for filters, that they imagine a system in which two only are employed

must necessarily restrict the colors recorded and produced to two. There is, in fact, a good deal of confusion on the subject of color mixture, and there are not a few who argue as though mixing colored lights and mixing colored pigments were the same thing. No mixing together of two or more pigments will ever make white; but the white light can be produced by the mixture of two correctly chosen colored lights. The printer who has to make color prints on paper certainly has to divide the spectrum into three, or even four; but he is dealing with printer's ink or paint, not with light at all. Every writer on the phenomena of light, including Tyndall and Sir Henry Trueman Wood, teaches that white light can be made by the proper mixing of two well-chosen colored lights; and it is further taught by every authority that white light contains all colors. I hope, however, to *demonstrate* that by dividing the spectrum into two it is possible to exhibit satisfactorily every color to the eye, including the purest white.

The practical method sketched above is possibly open to assault on strictly theoretical grounds, although it must not be forgotten that theories have sometimes to be re-examined in the light of facts. The first consideration, to my mind, is the production of results. I am not striving to defend a theory; nor do I deem it necessary to keep within the limits of a theory.

I have no doubt whatever that many improvements are in store. Lens makers, emulsion makers, and mechanics will each contribute to the advance. I expect to make important improvements myself when spring comes and I renew my experiments. The present results are presented as early experiments in the photography of moving things in color, and as the first serious exposition of work done in that direction. It is to be hoped that the numerous others who, we are led to believe, are working in the same direction will be encouraged to put their theories to the test and come forward with their results. —*British Journal of Photography.*

## PHOTOGRAPHY AND ORNITHOLOGY.*

ORNITHOLOGY may be studied in two different ways, and the followers of these two methods have often in the past been rivals. We have had those who study the dead and those who study the living birds, though, of course, there have been many ornithologists (MacGillivray and Newton being perhaps the most notable among them) who have done equally good work in both departments of the science.

I am not going to say here whether I think that the indoor or the outdoor method of study is of the greater importance—both aim at adding to our store of facts—and in science there is no such thing as a trivial fact.

Of course no real knowledge of any living bird can be arrived at without some previous acquaintance with its structure—the shape and number of its bones, the position and character of its organs and feathers, the mechanism of its bill and its feet, etc. The outside observer may guess at a good many of these things, but they cannot be accurately verified except by a minute examination of the different parts in the dead body of the bird. This method, necessary though it be, does remind us of the Continental doctor who said that he knew that his diagnosis was always

*A paper read by the Rev. H. N. Bonar, F.Z.S., before the Edinburgh Photographic Society.

correct, for he made a point of verifying it afterward at the postmortem examination.

Some naturalists make a point of shooting every rare bird they see, merely to be quite sure that they have not made a mistake in their identification. Others, again, shoot birds for the pleasure of re-examining their plumage or organs, and proving again what has already been proved many times. Of course a thorough scientific anatomical examination is necessary in the case of every species of bird; but when the killing is done by those who are not competent to make a right use of the material they have thus acquired, it recalls to me the days of my early boyhood when I took a watch to pieces to learn how it was made. I did not learn how it worked, and the watch never went again.

Let me at the outset admit that the open-air observer is apt to be unscientific; he is too ready to believe that he sees what he wants to see; he is too apt to guess, and to base conclusions on a slender foundation of fact. But the competent outdoor observer is as necessary to the science of ornithology as the indoor student—if we are to learn about the song, migration, pairing, nesting, and flight of our birds.

The outdoor observer is apt to describe the anatomist's methods as those of the butcher; and the anatomist retorts that the field-naturalist's methods are those of the amateur. On reflection we find that there is more than a little truth in both those descriptions, for the anatomist is far too apt to demand the slaughter of birds, while the outdoor ornithologist is apt to make mistakes in his observations, because of the shyness and restlessness of the birds he is watching.

Now, anatomy has often served its purpose when it has determined and set down the cold facts regarding the dead bird: and we can conceive that having detailed its complete study of a species of bird, its labors as regards that species would, for the time being, be ended; just as map-makers when they have thoroughly surveyed and charted all the geographical features of a district, leave it and pass on to another —though sometimes later on, new discoveries may necessitate a re-survey. But it seems to me that the work of the observer never ends. There always is something more to be learned and recorded about living birds. Hitherto, the great drawback to the field-naturalist's work has been that his observations have largely been only impressions. Often he has to be content with a far-off momentary glimpse of a moving object, which is generally so protectively colored that it is very difficult to see at all. A stealthy approach, a strained hurried glance, a flutter of wings, and the bird is gone. All that is left is a mere passing impression; of much value it is true, but still often only a matter of seconds. Of course there are some birds which are so tame that one can observe them by the hour, but those are exceptions.

What the naturalist wishes to get is some permanent record of those "impressions" I have just spoken of, and it is here that photography can help us greatly, for it can, in many cases, give us a lasting record. It can fix in black and white the passing glimpse, and can make the evanescent permanent, and can furnish to science a lasting picture, which can be studied year in and year out, and can be so multiplied that the exact record can be, if necessary, put into the hand of every ornithologist in the world.

Of course every photograph is not of great scientific value, and fifty successful plates *might* happen only to give us a repetition of one phase of a bird's appearance, or one attitude, or

one characteristic plumage mark. But whatever we may thus obtain, we possess as a permanency a definite lasting scientific gain of a secret wrung from shy Nature, stored and ready for use at any time.

And then one photograph *may* just happen to record one-half dozen points of interest. It may show some peculiar point of the plumage, some muscle in action, some sexual peculiarity, some method of using the wings, some characteristic way of alighting, and many other things.

Many a photograph taken primarily only as a *portrait* of a given bird, has revealed important scientific facts to the man who knew how to look at it rightly; for example, it was only accidentally in looking over my very large series of photographs of the lapwing that I noticed the remarkable size of the eye, and this lead me to study the discoveries of the anatomists more closely, and in the end to learn how much this bird feeds in the twilight.

In one very important respect photography fails us as yet—it does not record the colors of the bird's plumage, though it is true that it often helps us to realize them, as it generally gives the tone-value of many different colors. Bird photographers, more than any other class, I believe, would welcome the invention of some workable method of color photography.

In another way photography fails us in ornithology. It is inevitable that when you photograph a bird or a nest, which naturally occupies a great part of your plate, that the resultant picture should give little indication of the real size of your subject. It so seldom happens that you have any object of a given size to give you the right proportions of your bird or nest. Sometimes this defect can be remedied. One can occasionally contrive to include, say, a fir-cone or a well-known flower, or a bit of a wall in the field of focus—and this helps, but often no such object is available.

Before I mention some concrete instances of the ways in which photography may help the ornithologist, I ought to mention one incidental help which is really more valuable than any of all the others. Photography ties us down and forces us to concentrate our attention on a certain bird or a species for a long time. The knowledge which is thus (often half-unconsciously) gained is really a by-product, but, like the by-products of coal-tar, it has turned out to be of more value than the original substance. If you are tethered to one spot, and compelled to give your whole attention to one species for a day, or perhaps even a week, you must be very unobservant and unreceptive if you do not add immensely to your knowledge of that bird, its flight, its attitudes, and, above all, its notes. And you not only add to your store of facts, but you learn *how* to watch and *what* to watch for, and what things to select for observation and remembrance. A walk through a wood, or over a moor, or along a shore will teach you much, but still on such occasions you have not many minutes in which to study your birds; while if you focus your camera on a nest or a likely perch, you are held to that spot for many hours. You are (or ought to be) so well hidden that after a time the birds you are watching become gradually tamer. They will, in fact, very often ignore you altogether, for it is the camera (so very near the nest) rather than the man (who is hidden farther off) that they really fear. Then you are provided with binoculars, and, being seldom more than two hundred yards off, you see the birds as if they were quite close. I, this spring, took six days to get one not very good photograph of the avocet; but in those

days of hiding, stalking, crawling, and watching, while trying to outwit this particularly wide-awake bird, I learned more about the species than a dozen beautiful negatives could have taught me.

Photography rightly used may bring a great mass of facts into our hands, and provide us with evidence by which we can check and correct our theories. It also gives us material for many new deductions—material which can be easily stored beyond the reach of moths or damp, those dread enemies of stuffed birds. It can be used over and over again, and may yield us something new every time it is examined. Can we imagine what the scientific value of one single photograph of a dodo or a great auk would be to us now?

Here let me mention specifically some of the ways in which photography helps us in the study of birds.

### *Nests and Eggs.*

The nests (even of individuals of the same species) often differ widely. The part of the country, the site, the availability of building material, and even the weather, may be responsible for this variation, *e. g.*, a spotted fly-catcher's nest built in St. James's Park, London, had a great many wax vestas and cigarette ends in its composition. And I have seen a magpie's nest in a bare seaport town in the north of Norway built largely of broken barrel hoops and scraps of wire, because there were hardly any trees in the neighborhood. Again, a wren, a robin, or a blue-tit may choose a hundred different sorts of sites near houses, chiefly because they have little personal fear of man, and can find a steady supply of food near a human habitation.

Also the *kind* of tree or bush or cliff chosen for a site may alter the character of the nest, and often a verbal description of such a site may be quite inadequate. In such a case one single photograph taken from a carefully chosen spot often describes such a site better than many pages of letterpress, while a series of negatives of the nest of one species, showing the position, the outside, the lining, and the eggs, gives us a solid series of facts about the nesting habits of that species, and often of others nearly allied to it, as well. But of course there are limitations, and even exceptions to the usefulness of this kind of photograph, generally due to the fact that a negative with a nest in the middle of it can show little else. I have had many instances of this limitation in my experience.

As to photographs of the eggs themselves as they lie in the nest; while you cannot yet show their colors, you get an accurate record of their markings, of their shape, of the way they lie, of the number of eggs which each species lays, and sometimes a record of the time of day at which they are laid.

### *Plumage and Sex.*

In many cases, where there is any noticeable difference between the plumage of the male and the female, we may be able to record it by means of the camera rather than by the old method of killing a specimen. We can also show by photography, that in many cases the male takes a full share in the duties of incubation, a fact which a holocaust of "specimens" could not tell us of. It was only after I had got a series of photographs of the lapwing, the ringed plover, and the missel-thrush, that I learned how great a share some males of those species take in incubation.

We may also learn much about the differences between the summer and the winter plumage of birds, as of the black-headed gull, which at other times than the breeding season has a

white head, with slight black markings across the cheeks.

*Protective Coloring and Adaptation to Surroundings.*

Though a photograph does not give the actual colors, it gives with isochromatic plates (sometimes without them), values of the different shades of the plumage markings of a bird. It shows us how marvellously many a bird or clutch of eggs or a chick may be adapted to its surroundings.

*Attitudes.*

Many photographs incidentally show the birds in very remarkable poses—some of them not very elegant, yet having some meaning to the eye of the scientist. Some seem as stiff and unnatural as many of the snap shots of trotting horses, which are so familiar to us; yet every attitude photographed helps us to learn some new fact about our subject. I have a photograph of a missel-thrush which has just alighted on a branch, and is very camera-shy. I thought at first that the clumsy attitude of the bird was accidental, but I have since then seen missel-thrushes many a time assume the exact position.

*Habits.*

The way in which a bird walks or takes wing or alights are often shown very clearly on a photograph. Starlings, for instance, never *hop*, they walk or run. Gulls alight with their wings stretched up till they form two nearly perpendicular parallel planes. A gannet diving shuts in its wings altogether, as you would fold in an umbrella.

One curious fact about the ground-building birds, which I have only lately learned through photography, is that when I have set my automatic electric release over the nest, never once has the curlew, tern, lapwing, ringed plover, or golden plover, tried *with its bill* to remove the twig or straw or thread by which the shutter was to be released. The obstacle is either ignored altogether as the bird sits down or else is brushed aside, but it is never *lifted* away. This is all the more remarkable as I have seen a bird taking twigs or straws or reeds in its bill to lay them on the edge of the nest next the camera, as if to try to shelter the eggs from the glaring eye of the lens.

*Surface Structure and Muscles in Action.*

Though I do not know how to study my photographs anatomically, or, indeed, exactly what to look for with regard to structure, I have still learned much about many points of a bird's anatomy.

I, as I have already mentioned, noted the great size of the lapwing's eye, and found it to be larger than that of the gray-leg goose, a bird nearly thrice its size. I also noticed the action of the abdominal muscles in raising the feathers of what is called the "brooding-patch," to cover the eggs. But I am not aware that anyone else has noticed that these muscles are quite as active in the male as in the female, in the lapwing, at least. A photograph shows us, among other things, the air-cells in a gannet's skin, and the rudimentary crest of the blue-tit. These, and many other facts, photography puts on record. If it does not always bring them to light for the first time, it at least illumines them afresh and in different aspects with every new plate exposed.

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*For Still Life Subjects* take Rodinal, one part; water, forty parts; no bromide. This makes a clean and economical developer and gives just the quality desirable.

## PROFESSIONAL PHOTOGRAPHERS' CLUB OF NEW YORK.

THE second annual vaudeville and reception of this young but flourishing club was held at the Palm Garden, New York, on the evening of January 26, and was a great success. With a membership of less than one hundred, the presence of some two hundred couples when the dancing began indicates a very live and busy membership.

The evening opened with a first-class vaudeville entertainment, after which the floor was cleared for dancing, which was indulged in until the small hours of the morning. Every member of the club, with the exception of its genial Secretary, Mr. Elias Chait, unfortunately absent through a family bereavement, was on hand with his good lady; there were also present many photographers at present unaffiliated. The Professional Photographers' Society of New York was represented by E. B. Core, Dudley Hoyt, Jacob Schloss, S. Newman, Pirie MacDonald and their wives. Representing the manufacturers and dealers we noticed F. Harry Hall, of the Berlin Aniline works; Mr. Snow, of the Eastman Co.; Wm. Leach, of the Ansco Co.; J. G. Lavender, of Geo. Murphy, Inc.

We congratulate the Professional Photographers' Club of New York on its rapid and solid growth. Such opportunities of getting the photographers of a city or section together, affording a means of pleasant social intercourse, are doing much to break down the old-fashioned idea that every other photographer was to be treated as an enemy. It has been demonstrated that good-fellowship and coöperation are good for the individual and the profession.

## CONVENTION AND SOCIETY NOTES.

*Professional Photographers' Society of New York.* The coming convention of the New York Society bids fair to exceed all former conventions in every direction. President Bradley is working early and late to ensure a big success. While it is a little early to disclose the full program, we know enough to be able to announce that there will be some agreeable surprises when the names of the demonstrators are announced. Mr. Bradley has been fortunate enough to secure promises of practical demonstrations from people who have hitherto declined to appear in public.

One good arrangement that we can announce is that all the demonstrations will be held in the Assembly Hall of the Metropolitan Building. There will be no scattered classes in different studios, and every member will get the benefit of every demonstration—the demonstrations include at-home portraiture, draping and draperies, and on the business end of photography.

The fact that the picture exhibit is to be opened to the public is going to have a good effect on the quality of the work exhibited; it cannot help but be above the average.

*P. P. S. of N.Y., Labor Bureau.*

JANUARY 22, 1909.

DEAR BROTHER MEMBERS:

President Bradley has asked me to write to you regarding the Free Employment Bureau of the Professional Photographers' Society of New York.

Since last April the management has been in the hands of J. T. Aitken, Port Jervis, N. Y., who reports that there have been 182 registra-

tions by parties wanting employment, 51 applications from members for assistants, 15 of whom have reported that they have engaged help from the lists supplied them, and 5 persons have joined the Society in order that they might use the Labor Bureau.

*Don't you know a good thing when you see it* or do you forget about the Bureau?

If every one of you had been taking a personal interest in the Bureau there would have been a thousand registrations since April.

If every one of you had asked for a list when you wanted help there would have been probably 500 inquiries instead of the 50.

No one man should have the burden of all of this work, and, with a membership as large as ours, general advertising should not be necessary.

If every one of you will send to Mr. Aitken for application cards and hand one of them to every man who asks you for a job and insist upon his filling it out and sending it immediately (for there is no charge), the Bureau would soon become so useful that we could afford to pay the manager a salary.

Now won't you take a personal interest in this department of our Society and help to make it really valuable? It never will become so without *your* help, and you cannot tell how soon you will need it.

Fraternally yours,
PIRIE MACDONALD.

P. S.—Every member of the Pennsylvania Society is entitled to the use of this Bureau and is most welcome, and we wish that they would all take an interest in it, as though it were their own.

*P. P. S. of N. Y., Buffalo Section.* President Bradley, accompanied by Pirie MacDonald, E. B. Core, and Col. Marceau, paid an official visit to this Section on January 25. An afternoon reception was held at the studio of H. D. Beach, followed by a dinner and a Section meeting in the evening, when plans for the Annual meeting were discussed.

*P. P. S. of N. Y., Rochester Section.* This Section met on the evening of January 12 at J. E. Mock's studio. The members of the executive board of the P. P. of A., then in Rochester for their Annual meeting, were present as guests of the evening. President Barrows of the P. A. of A. spoke on the coming "National," and the Rochester Section pledged itself to do everything possible to make the Rochester convention a big success.

*Photographers' Association of New England.* The executive committee of the Photographers' Association of New England had the final meeting of the year December 31, 1908, President F. A. Place in the Chair, and full board present.

The books of the Secretary and Treasurer were audited and found correct, and show a paid membership for 1908 of 443, with a net profit of $471.40, making a fund of $2290.33 in the treasury.

GEO. H. HASTINGS,
*Secretary.*

This is a better showing than our report of the Annual Convention in the September issue of the magazine would have lead one to expect. We trust, however, that the executive committee will not rest on their oars. Conventions must not be run with the sole idea of paying expenses and making a small profit to be added to a treasury fund.

*P. P. S. of Penna., Pittsburg Section.* A regular meeting of this Section was held January 14 at the studio of Don Seele, Pittsburg, Pa., Vice-President E. E. Seavy in the Chair. The following officers were elected for the ensuing year. President, O. C. Henry; Vice-President, Don Seele; Secretary and Treasurer, E. W. Brown, of Beaver, Pa. The meeting then adjourned to enable the members to attend the Fifth American Photographic Salon then being held at the Carnegie Institute. The Annual banquet will be held February 18.

# TRADE NOTES.

FROM THE AMERICAN ALBERTYPE CO., of Brooklyn, we have received a very handsome calendar with examples of the different grades of high-class colored post cards for which this firm is famous. The colored card will always sell quicker and for higher prices than the black and white. A beautifully tinted and plate-marked card can be produced at a very low rate and sold at a high one. Photographers who have good subjects will do well to ask for this sample book and calendar.

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THE CONLEY CAMERA CO., of Rochester, Minn., well known for their famous silent shutters, are also manufacturers of a line of very fine cameras. Their new catalogue fully describes the cameras, hand and stand; also their silent shutters, and success vignetters. The prices are reasonable and look like money savers.

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TOLIDOL an ideal all-round developing agent, non-staining and non-poisonous, dissolving readily in cold water. Tolidol gives beautifully clear negatives, preserving all the fine gradations and delicate details in the high-lights as well as in deep shadows, and is a good developer for flesh tones and white drapery. It has many other qualities, and the photographer who is looking for a new developer might well try it. Manufactured by the The Tolidol People Co., Clinton, Wis.

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THE ANSCO COMPANY, of Binghamton, New York, have just opened an office at 171 Second Street, San Francisco, Cal., where they carry a large and complete stock of Cyko papers and post cards in their various grades, also Ansco films, Ansco film cameras, developers, and other sundry articles. It is their intention to give the very best service possible from this branch and supply dealers throughout California, Arizona, Nevada, and points intervening as far east as Salt Lake City. With Woodard-Clarke and Co., at Portland, Ore., the Gailey Supply Co., at Seattle, Wash., and the New Ansco office at San Francisco, the Pacific coast is well taken care of, and consumers will have no difficulty in securing supplies of the Ansco products. Mr. C. B. Stanbury, vice-president of the Ansco Company, will remain in charge there for some time, as it is his desire to get the branch thoroughly organized and established before returning east. The Ansco Company inform us that they are planning the removal of their Jersey City Chemical plant, consisting of some six buildings, covering about two acres, to Binghamton. The Ansco Company will then be in a position to supply from their Binghamton factories every necessary article for the complete finishing of a photograph.

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THE December issue of *Prism*—the Bausch and Lomb Optical Company's bright little monthly —is devoted to the seasonable subject of snow pictures. Snow and ice formations lend themselves to wonderfully beautiful effects, and the man who has any time on his hands —as many photographers have at this season—can secure some beautiful pictures. *Prism* will help you with some good advice.

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IT is claimed that more than one-third of the photographers in the United States are users of Cramer Plates. This is the best kind of endorsement as to quality that a plate can have. Cramer plates can be relied upon to give unvarying satisfaction.

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FOR a paste that will stick we have no hesitation about recommending Day's White Paste manufactured by the Diamond Paste Co., of Albany, N. Y. We had a difficult mounting job on hand and we tried different methods and materials, but finished up with Day's White Paste and got the best results.

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THE GOERZ CELOR LENS is making a name for itself as the home-portrait lens, being especially adapted for fast exposures in weak light. Full particulars of this and other Goerz specialties are found in the descriptive catalogue which will be mailed on request to C. P. Goerz Amer. Opt. Co., Dept. N., 79 E. 130th St., New York.

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"DO not make your negative fit the paper, but make the paper fit the negative," is the advice offered by the Defender Photo Paper Co., and in the Argo gaslight paper they offer a grade for every kind of negative. Their free catalogue gives a lot of information about the paper and its manipulation.

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ONE of the biggest of the many successes achieved by the Eastman Kodak Company is undoubtedly the Eastman Plate Tank. It has caught on, and there are already thousands of enthusiastic photographers using it and wonder how they got along without it. Made in 5 x 7 and 8 x 10 sizes; all classes of negatives can be taken care of. The disagreeable dark-room work is cut down to almost the vanishing point. The tank cuts out a lot of worry and unnecessary work and makes better negatives. Had the Eastman Company any doubt of the tank not giving better results than the tray, they would not have put it on the market. If you want to do more and better work in less time, get an Eastman Tank and you'll see how it is done.

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VELVET NEPERA is the development paper with the greatest latitude. At a recent gathering of photographers we overheard a prominent "home-portraitist" declare to a fellow-worker that he had sampled them all and found nothing as good as Velvet Nepera. He gets big platinum prices for his work.

# WILSON'S PHOTOGRAPHIC MAGAZINE

A MONTHLY MAGAZINE FOR PRACTICAL PHOTOGRAPHERS

Founded in 1864 by EDWARD L. WILSON
L. W. WILSON, Publisher and Proprietor
T. DIXON TENNANT, Editor

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## EDITOR'S TABLE.

THROUGH the courtesy of Mr. L. B. Jones, of the Eastman Kodak Company, we have received a copy of Queen Alexandra's Christmas Gift-book—*Photographs from my Camera*. One of the big book successes of the year in England was the publishing of an album of Kodak pictures made by Queen Alexandra. The engraving, printing, binding, and distribution were done gratuitously by different firms, and the proceeds—which must have been very large, as over 300,000 copies of the book were sold soon after publication—handed over to Her Majesty's charities. The pictures, of which there are over one hundred and fifty, are not only interesting as intimate snapshot family photographs, but many are interesting from a photographic standpoint. Queen Alexandra is an enthusiastic amateur of many years' standing, and turns out some interesting work. The incidents and scenes are carefully chosen, and the results show a thorough working knowledge of the possibilities of the Kodak—the camera used by the Queen. The publication of this book of clever photographs will not only provide a very large sum of money for deserving charities, but will have a stimulating effect on Kodak picture-making throughout the British Empire.

THAT venerable youngster, Mr. O. G. Mason, who has been in charge of the photographic department of Bellevue—New York's great city hospital—for the past forty years, is retiring for a well-earned rest. Mr Mason is known to thousands of amateur and serious workers in photography, all of whom will be sorry to lose him from the field of his activities.

MR. H. SNOWDEN WARD, some few evenings ago, gave his interesting lecture on Chaucer's Pilgrimage before the photographic section of the American Institute, New York. Of Mr. Ward's many lectures we think this is one of the most enjoyable, the slides being particularly beautiful and interesting. The large audience thoroughly enjoyed Mr. Ward's talk, which carried them back to Chaucer's day.

THE Photo-Secession galleries are at present showing an interesting collection of photographs, and mostly portraits, by Alvin Langdon Coburn and some autochromes. The nearer Mr. Coburn gets to what may be termed "straight" photography the better he gets. One of the best pictures in the collection is a capital portrait of William DeMorgan. Some of the autochromes are very beautiful and show the possibilities of the process in the hands of a serious worker.

THE *Deutscher Camera-Almanach*, 1908. This book aims to represent the artistic progress of the year in photography, more especially in Germany, and the illustrations are chosen to represent all phases of modern photographic art. The articles cover different phases of photography illustrated by the pictures, which have been well chosen and are splendidly reproduced, as are most illustrations hailing from "the Fatherland." Besides the German workers the leading pictorialists of Austria, Belgium, England, France, and Holland are represented. The book retails in the United States at $1.25 in paper covers and $1.75 in cloth, and is imported by the American Photographic Publishing Co., 6 Beacon St., Boston, who are the American agents.

THE forthcoming issue of *Photography and Focus* gives particulars of the new latest plate for color photography. The invention is a French one, as was the Lumière plate, and consists of a very fine network of violet lines in one direction crossed by red and green lines at right angles. This network on the plate receives a sensitive coating, which, when treated very much as an ordinary plate is treated, gives the picture in colors. The lines are about 250 to the inch, and can only be distinguished when the pictures are examined very closely. The reproduction of the colors is very faithful, except in the case of green, which is not yet very perfectly rendered. The new plate is to be termed the "omnicolore," and the manipulations are fully described by the editior of our contemporary, who has been using the plate with much success. Details of this new process will be given in our next issue.

A. F. BRADLEY
President Professional Photographers' Society of New York

By Gertrude Kasebier, New York

# WILSON'S PHOTOGRAPHIC MAGAZINE

FOUNDED IN 1864 BY EDWARD L. WILSON

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## "HOME PORTRAITURE."

THERE is a growing feeling among a certain class of professional photographers that the term "home portraiture" should be tabooed and as far as possible dropped from the photographer's vocabulary.

It is surprising to find this opposition to the term "home portraiture," and the thing itself coming not from isolated and individual photographers, but as one of the planks on which a section of a strong and supposedly progressive association is prepared to stand.

This effort to clog the wheels of progress reminds us of the haughty King in the olden days, who carted his throne down to the beach at low tide and thought his command was enough to keep the rising tide back. History tells what happened in his case—and history often repeats itself.

"Home portraiture" is the natural and logical result of fifty years' progress in photography. It is the outcome of the lens and plate makers' ceaseless activity and research.

When Daguerre made his first portrait, the exposure, out in the open air and in strong sunlight, lasted one hour; today, with the fast lenses, plates, and shutters we are happily blessed with the same results can be obtained in one-thousandth part of a second, and herein lies the future certainty of "home portraiture."

From Daguerre's day to within a few years ago, the studio with its glass walls and roof was a necessity in photographic portraiture, but it is no longer a necessity, and like other unnecessary things —the vermiform appendix, for instance —it can be cut out to advantage.

We are not advocating or prophesying the immediate closing up of studios for they will outlive our day, but we are objecting to the ostrich-like attitude of some photographers who think that by ignoring home portraiture and calling it by some other name when it has to be mentioned, that it can be suppressed, or, at least, kept back.

Because a photographer has a few thousand dollars invested in a studio, there is no reason why he should insist on the sitter coming to the studio to be photographed at six, twelve, or eighteen dollars the dozen when the said sitter would rather have the pictures made in his own home and pay double the price for half the quantity.

A photographer is not lowering his dignity when he makes an appointment to go to the home of a customer to make some sittings. We know photographers on Fifth Avenue, New York, who make home portraits, but they do not

go from door to door seeking customers as some of our timid "studio only" photographers would have us believe.

The home portraitist has had a good influence on the raising of prices; he believes the laborer is worthy of his hire and invariably charges a good stiff price accordingly. A few workers like Coburn and Pierce getting twenty-five dollars per print are doing a great deal more to advance photography as a profession than the studio man who puts a notice in his show-case that "during the slack season my twelve dollar sepia platinums will be reduced to six dollars the dozen."

It has never been seriously contended that a photographic gallery is an ideal place for making natural and characteristic portraits, the usual paraphernalia—the vicious headrest, the flying screen, and the rolling platform all tend to give the average sitter the feelings of a martyr at the stake. Better work can be made in better surroundings.

The photographer who would keep abreast of the times will, while keeping his studio furnished with the latest and best equipment, realize that home portraiture has come to stay and can be made to pay handsomely.

## PRELIMINARY ANNOUNCEMENT OF THE PROFESSIONAL PHOTOGRAPHERS' SOCIETY OF NEW YORK.

THE preparations for the coming Annual Convention of the Professional Photographers' Society of New York are moving forward steadily to completion, and from the general enthusiasm and interest displayed during the President's trip through the State on the occasion of his visit to the various Sections, it argurs well for a record-breaking attendance at Assembly Hall in the Metropolitan Life Insurance Building in New York City on April 7, 8, and 9, the place and date of the Convention.

At this writing, some six weeks before the time of meeting, the full and detailed program is not in readiness for announcement, but arrangements are being carried forward on so extensive a scale as regards the practical benefits to be derived by its members, that it were poor economy indeed for any progressive photographer to miss them on the score of expense. See them, mark, learn, and inwardly digest them, and *increase your earning capacity accordingly.*

There will be several radical departures from the features of previous years, among which can be mentioned the Open Exhibition to the press and public of the pictures sent by the Society's members. The Executive has felt that so excellent an exhibition of artistic photography, as was shown on our walls last year, calls for the utmost publicity possible. It not alone gives unusual prominence to our Society as an organization of growing strength and power, but tends to dignify our art and impress its importance upon the minds of this busy work-a-day world and its people.

Instead of as heretofore having demonstrations at the various studios, at which it was possible for each member to see but one, we will this year hold all demonstrations in the Assembly Hall so that every member can have an opportunity of seeing each one of the strong demonstration features to be held there. At the present writing we can announce first: Mr. Core, affectionately known among his intimates as "Pop" Core, that wizard

of the camera in the production of children's portraits, who has consented to leave his studio without other preparation than his regular equipment, arriving at the Hall make use of such material as he finds at hand and with a couple of youngster subjects make for your edification and benefit several negatives of the type that has made his fame and name worldwide.

Mr. Harris, of Harris & Ewing, of Washington, the Secretary of the National Association, will give a talk to the members on "System in the Studio" and its application to the business methods and ends of photography. This from a man of Mr. Harris' versatility should contain a lot of the right kind of matter that will help us to save dollars and cents in our business methods.

Mr. Puffer, practically the only man that I know who is producing results both as to negatives and to finished productions entirely by artificial light, will give a demonstration on the making of photographs by electric light—this by a man who has cast aside daylight entirely should also be a unique and decidedly interesting feature.

Former President Hoyt has also assured me that he will give a demonstration, and I shall strive to induce him to have it take the line of hints on draping and draperies; as he has done some very beautiful work along this line this feature certainly should prove of value to us.

Mr. Henry H. Pierce, of Boston, whose home portraiture is so well-known throughout the country, has so far departed from his usual attitude as regards demonstrations at conventions as to assure me that I can call on him from the floor and he will respond to the best of his ability; as that ability is of great practical and artistic value we can be assured of some very good pointers from his direction.

Mr. Ryland Phillips, whose demonstration of brush development as applied to the production of his negative work was such a success last year, will this year give another unique demonstration showing a series of photographs by several of the leading photographers, including Duhrkoop, of Germany, and show through a number of lantern slides the arrangement of the subject in the studio, giving an additional wide-angle view showing the arrangement of the camera, curtain, and various methods by which the finished picture was obtained. This should prove an exceedingly valuable demonstration also.

Mrs. Kasebier, whose wonderful work and artistic creations have won for her an enviable reputation in the artistic field, has agreed to give a demonstration and talk along her own unique and artistic lines on the subject of "Composition." I believe this will be her first appearance before any society organization of her contemporaries, and think that we are to be congratulated upon having her assurance of doing this, and that our Society has achieved a signal success in obtaining the consent of Mrs. Kasebier to come before us and to strive to impart some of her wonderful knowledge and her interpretation from an artistic standpoint of the sitter who appears before her.

That greatest of living sculptors, August Rodin, who has so recently and valiantly been wielding an all-powerful cudgel in behalf of photography as one of the greatest arts, must in a considerable measure have been influenced by his acquaintance with the artistic conceptions of Mrs. Kasebier, and also by the masterpiece she created of him.

There are two other demonstration features of great importance which cannot be announced at present, but rest assured there shall be no stone left unturned to bring about their

consummation before the time of our meeting.

Then there will be the $50 prize in gold awarded for the most valuable and practical idea, as we have done for the past years, and a number of other features which we shall plan for you within the next few weeks, and about which definite announcement will be made from time to time.

The dinner, which proved so enjoyable an affair with us last year and which was served in excellent taste and amid exceeding enjoyable and hospitable surroundings, will be repeated again this year.

In closing I wish each one to exert every effort to make our picture exhibit not alone the equal, but, if possible, a still greater and more successful one than last year. Remember the eye of the public and of the great Metropolitan publications will be focussed upon us and our productions, so let us embrace this opportunity to make good our claims for our art as an art.

Do not forget the railroad certificate plan which entitles you to a fare and one-third to New York and return; each member, no matter how short the distance from the Metropolis, must help his brother worker to make it a point to apply for this certificate before leaving his home town, as he in this way will not alone save something for himself, but to a still greater degree help his brother worker more remotely situated. It is absolutely necessary that we turn in the stipulated number of certificates to secure this reduction.

A. F. BRADLEY,
Pres. P. P. of N. Y.

## PROFESSIONAL PHOTOGRAPHERS' SOCIETY OF NEW YORK.

AT the annual banquet of Rochester Section, No. 2, of the Professional Photographers' Society of New York, held on January 26, in honor of the visits of the President and the First Vice-President of the State Society, the speakers presented views which the assemblage felt would be of interest to all photographers; and a motion was carried that Mr. A. H. Harscher, Secretary of the Rochester Section, be requested to summarize and prepare for publication the substance of the addresses.

### *Mr. Harscher's Summary.*

A review of the history of the Professional Photographic Associations of our country shows that down to 1904 their aims were primarily to improve the quality of photographs, and little or nothing was undertaken to better business conditions for the photographer, or to establish coöperation between competitors.

When the New York State Society came into being its object was announced to be primarily improvement along business lines, and coöperation was sought through the creation of Sections of the Society. These Sections are self-governing; each solving its local problems in its own way.

The New York State plan, as compared with all previously existing plans for securing coöperation between photographers, proved a long step in advance.

We now find Sections wherein the most delicate and difficult business problems are successfully handled. Competitors have found it profitable to cooperate. The mutual confidence thus established, and the friendships resulting therefrom, are of the utmost value to the men.

At the monthly meetings of the Sections the members look closely after their local interests. Their broader interests are discussed at the Annual meetings of the State Society.

Some have felt the Section was sufficient unto itself, and could cope with all problems independently of the State Society. It is but necessary to cite one of many instances which might be mentioned, to show the fallacy of this reasoning; there is now on the statute books of this State a law which, were it known to the public in general, might subject every proprietor of a studio to blackmail. This law should be amended. A Section, acting alone, could scarcely hope to secure the amendment. The State Society, representing all the Sections, can obtain a hearing and wield a powerful influence. Carry this a step farther; suppose the Societies of all the States were conducted on the New York State plan, and that the Sections were officially represented at the meetings of the State Societies, and all the State Societies were officially represented in the National Association. How easy it would be to obtain powerful representation whenever necessary. The present copyright law of the United States would probably read quite differently had the photographers been united and well represented at the time it was before Congress.

Is photography a trade, a craft, or a profession? If either of the former it should be governed by business principles. If a profession, its members should be bound by a code of ethics.

When one goes to a physician and pays $2 for a prescription written on a slip of paper which cost about one-tenth of a cent, what is it he pays for—the paper? No, he is paying for the knowledge and skill required for writing the correct prescriptions. When a lawyer draws up a will and charges from $10 to $100 for it, is he charging for the paper on which the will is written? Goodness, no! He is making his client pay for the knowledge and skill necessary for producing a document which will withstand the test of the courts.

When the photographer figures the cost of photographs as a tailor estimates the cost of a coat, is he figuring like a professional man? How about the years of study, and the cost of experimenting? How about the constant mental and nervous strain he undergoes in solving the never-ceasing problems, which differ with nearly every patron? Does he charge for these? Yet these are the costliest items he puts into the work. When he insists on being paid for all he gives he will have adopted one of the fundamental business principles of all professional men.

A profession, to be recognized as such, must have its code of ethics. Lawyers and physicians have theirs. Their codes are effective because they possess the power of discipline.

At present we can make laws, but we cannot enforce them; we lack the power of discipline. How obtain this power?

Three years ago the Rochester Section, in the face of ridicule and denunciation, issued certificates to such of its members whose work attained a certain standard, and who agreed to obey the laws of the Section. (All the members do not hold certificates, yet there is no dissatisfaction.) This certificate is issued annually, and each year its design and general appearance are changed. These certificates are now recognized by the public. Through the press the public has been informed what these certificates stand for. From the holder of one of these the public is assured of receiving good work and honorable treatment. Were the holder of one of these certificates to treat a patron unfairly,

and the case be proved before the Section, his certificate would be withdrawn, and none again issued until the matter had been satisfactorily adjusted. The Section has also power to suspend or expel any member who does things detrimental to its interests.

Here are the first steps toward the creation of a code of ethics—the first steps toward obtaining the power of discipline.

Were this plan in universal use, and the public fully informed regarding its meaning, portrait photography, as a calling, would stand on a higher plane than it now occupies.

If professional photography is to be rewarded in proportion to the value of the knowledge, skill, and the other requirements necessary for producing the best results, it can only be brought about through coöperation between those who are prominent in its ranks. If no forward step is to be taken until all the photographers of the State are members of the Society, then no progress will ever be made. The experience of Rochester is worthy of consideration; for three years the Section tried repeatedly to induce all the owners of studios in the city and vicinity to join, regardless of their status and regardless of their business methods. Finding the men would not come the Section decided to move forward, and adopted various rules which were also condemned by one writer. Then another effort was made to increase the membership. Two men joined, and stated they did so because of those rules. Others have stated they will join when the Section accomplishes still more.

One hundred men, well organized, working in unison and striving for a common goal, can accomplish more than ten thousand who are not organized and whose interests are diverse.

Identity of interest is indispensible. Men whose interests are not identical will not work harmoniously together.

## "WHAT WOULD THERE BE FOR ME TO GAIN?"

BY W. F. OLIVER.

About a year ago there appeared in a widely read magazine an article by "An Outsider" concerning the P. A. of A. and its policies. The evident intent of the arguments presented was the demonstration of a well-justified demand for prizes and a lot of them—grades from kindergarten up—classes from A to Z. There is no question but that if the executive board could guarantee "all prizes and no blanks," could advertise that every Convention attendant would receive a medal, plus a few specials for the oldest, the youngest, and the one coming the longest distance, Coxey's army would fade to insignificance, and Rochester would be under martial law for a week in July.

It was not the matter of prizes, however, which attracted my attention; quite unconsciously the writer sounded the keynote of conditions which are responsible for the status of Association affairs as they stand today—not only the keynote, but the whole gamut without a skip. To be comprehensible I will make a few abbreviated quotations.

" . . . . what would there be for me to gain by joining the Association (P. A. of A.), paying my dues, and being able to attend only once or twice in a lifetime, when the Convention might possibly be held within reasonable distance? And that may be the question others are asking: 'What would

there be for me to gain?' . . . . a friend joined the Association, attended the Conventions and dropped out; asked 'Why?' said he could not afford travelling so far—there was nothing for him to gain by retaining membership—*it would be cheaper to join over again.*" In closing, the writer uttered these fateful words: "I am not a member because there is nothing for me to gain. If there was something to gain I certainly would become a member."

As the expression of an individual opinion, the foregoing might be worthy of but little consideration; believing as I do that the conduct of the "Outsider" and the Intermittent member proves their attitude, to them my comments are most emphatically dedicated.

Returning from his first Convention, a young photographer overflowed with enthusiasm to an elder in the craft only to be met with a chill rebuff, almost "goose-pimply" in its suddenness. With an air of infinite superiority, the result of years of "success," the elder remarked, "These Conventions are all in the hands of the manufacturers and dealers; they don't amount to anything but to give them a chance to show up their goods. Of course there are a few big-bugs to cart off the prizes and incidentally blow some hot-air if they can get anyone to listen, but I practically cut the whole thing out years ago—just run in for an hour or so to see if there is anything new and then go to a ball game or somewhere else for a little fun."

Now it happened that this example of success was so situated that competition was an unknown quantity and, to him, an unknown contingency. Not long after the conversation a new studio was opened and all the people in town knew it; the newcomers had pictures, they had medals, and they had energy; they were before the public all the time —photographically, socially, and politically. Needless to state, old-time "success" became worried; when the next "National" was held, "success" paid freight on himself for many, many miles that he might be there at the drop of the gavel. What for? I wish you might read the letter he sent home to his assistant. Such a wonderfully educative meeting! Such coöperation! Such *enthusiasm!* Such tremendous changes as were to be inaugurated as soon as "Success" got home. Really you would have thought the next edition of "Rand & McNally's" would show all red for a radius of fifty miles around his studio. What happened? To all appearances, *nothing*. "Success" is not doing business any more. He didn't have "a christian burial," he just faded away. I can fancy, however, that he often soliloquized, "What would I have gained had I attended the National *every* year," because he was *such* a bright boy.

Poor judgment and the much poorer judgment of interested friends set a young man up in photography in a locality which soon showed all the earmarks of "impossibility." With grim determination the young man struggled against the apparently inevitable; nobody ever came to see him, and he could get neither the opportunity nor the price of a visit to more successful members of the craft, still he took the magazines because he felt he ought to, and went to conventions because the magazines said he should; but if he were asked "What is there for you to gain?" I fear he would have answered *nothing*. By the time he had made a few of these annual pilgrimages, he had made several acquaintances, some of whom he felt he could call *friends* and his invitation to "travelling representatives"—come and see me though you can't sell me anything—eventually bore fruit.

There came one day, one of these

Knights of the Road with samples of a new method for finishing a certain class of work in which the young man was interested; briefly, it was but a matter of a few weeks before a large percentage of his business was bringing him 40 per cent. more profit; as a direct result, or incidental to this, another part of his business was soon netting 50 per cent. more than formerly. Just like finding it! Not by any means—he was making a superior class of product and it took weeks, yes months to perfect himself—but it was the turning point in his career.

Another gentleman called to interest him in a different make of plate; before leaving he inquired, "Have you ever exhibited?" Though he met with no encouragement concerning the use of his brand of plates, he continued to make the young man a call at every opportunity and every time it was, "Have you ever exhibited? You are capable of making "Convention stuff." Finally, exhibits *were* prepared and sent, not once or twice, but many times until eventually prizes were won.

Today you will not find this young man planning trips to Europe, neither will you find him complaining that he has no opportunity; you will never find him with nothing to do, because he has learned to do so many different classes of work that when one line fails another is always at hand—there is always *some* open field. You will not see him crossing the Continent to attend a Convention because he cannot afford it, but you *will* find his dues are always paid in advance to both the National and his Sectional Association; he never thinks "what shall I gain" when I must remain at home, for he is glad to help those who are permitted to attend and realizes that his regular contributions will help to make the Convention so much the better when it *does* come his way.

Ask him *now* "what has he gained" from affiliation with the Associations, and I fancy he would not care to tell unless you promised to listen for an hour or two. Prizes? He would tell you that if he were to be fined "$10 and costs" for overindulgence in the amber-colored fluid, it would attract far more attention and be much longer remembered than the winning of any prize. The beneficial influence is so broad he would be forced to generalize to be anything like brief; the pleasure of knowing there *are* so many "good fellows" and *knowing* some of them; the assurance of their sympathy and assistance on all occasions; the satisfaction of having struggled and won; the pride of being a *member* and the joy of having helped a brother. Last but not least, the less esthetic feature that he would otherwise have been "down and out."

Possibly in my last biography you perceive the flipper of the "Octopus" rather than the hand of fraternity. We have been generalizing—impersonal. We have not commenced to argue. I would be personal; from now on I would have it between you and me; Mr. Outsider and Mr. Intermittency.

Once upon a time, you began your career as a professional photographer; it doesn't matter when, why, or how you got the money. The one great fact is that you took up the practice as you found it; *you* didn't invent photography or any feature of it. Unless you are that wonderful "one-man-in-a-thousand" whose other name we may never learn, you are not responsible for a single feature of advancement or improvement. There have been times when you believe you had worked out some magic developing formula, periods when you practised some very "catty" tricks, and you were careful that they did not become common knowledge; but you have since learned that the former was

the result of indigestion or a disordered imagination, and the latter were a bungle compared to up-to-date methods.

True, indeed, your work has always been equal to the average in every quality; quite possibly you have been justified in claiming to be the *leading photographer* of ———. Doubly true, your work shows a vast and continuous improvement as the years go by. If I were to ask you why this had all come about, *you* would claim the credit, but *it is not true.* You have progressed *because photographers have formed Associations* and *Associations have held Conventions.*

I will admit there are a few notably prominent photographers who have established an enviable reputation and a most attractive income, independent of all fraternal affiliations. I presume you could name two or three in an instant but *what more do you know of them or their methods.* For every such name you mention there might be named a score of equally prominent photographers who *are* Association men and you know *all* about them and their methods; you know, first of all, that everyone of them places the Association as the one paramount factor in his advancement; because of this, they give lavishly of their time to assist others as they have been assisted. The work and the words of these experts are given out in the magazines, then the trade journals, finally to appear in advertisements and packed with the goods themselves until the condition has arrived that no place on the face of the earth, where American photographic materials are sold, can escape the benefits of American Photographic Associations.

Mr. Outsider, you ask "What would there be for you to *gain?*" I ask *you,* "*What have you paid for?*"

When a prominent speaker declared "The P. A. of A. is the largest and most influential photographic organization in the world today," he was greeted with wild applause. It should be the pride and ambition of *every* American photographer to make and sustain it thus. What has the average, yes the *majority,* done? You, Mr. Outsider and Mr. Intermittent, have made a *beggar* of it.

When the "next place of meeting" is before the Convention, the primary consideration is *how many attendants* can we draw from the logical radius *susceptible to the Convention's influence.* Before the eyes of every incoming Executive Board, there always looms the spectre of possible *financial failure;* they feel, "we must not allow the treasury to be depleted, we must not fall behind previous records." So the campaign of advertising begins; promises of endless joys of entertainment—wonders in the line of exhibits and various panderings to the unfailing demand for *prizes*—a demand that exists *not* because a man desires to know his *actual standing,* but because he desires something his *competitor* does not possess, that he may take financial advantage of it. Such conditions would not exist if it were not that the photographer must be bribed, wheedled, or fooled into attending the Convention or insufficient dues be forthcoming.

Ignoring, for the moment, everything the Association has achieved, or the method of its accomplishment, even the greatest skeptic will not deny *the wonders which might be performed if the Association could depend upon an unfailing annual income from dues.* If, as they easily might do, 5000 photographers would join the Association, *join now* and pledge themselves to pay their dues for the ensuing five years, if, as would then result, the Association had a positively assured annual income of $10,000, *then* the harpies and critics might be in a position to say whether Conventions are worth while.

In discussing the economic aspect of

Convention attendance, an Association veteran asserted that the average individual expense of attending the "National" was not less than $50. I think all will agree this is a conservative estimate. Of this amount the Association gets from the new member 10 per cent., and from the continuous member *only* 4 *per cent.* Outsider and Intermittent, if you go or when you go, do you think your $5 *begins to pay for what is offered you?* Look at the financial reports of the Association and see! *Possibly* you paid for one-third of what the Association actually paid out for *you*—but the next year you do not pay your dues because you cannot afford to *go*. You are willing to pay $50 for selfish enjoyment, paying the railroad fare, hotel, etc., in full, but only one-third to the Association—still you cannot "afford" *two dollars* the next year for fraternal assistance. Your one little excursion equals the expense of dues for twenty-five years—but you can't *afford* the latter. Let us have a button inscribed "*Millions for fun, but not one cent for Fraternity.*"

We must not desist without due consideration of the "big-bugs" who get and have been getting all the "cream." Let me tell you it has been "whipped" cream, and they have done their own "beating." You can mention nothing these men have received for which they have not worked, while volumes could scarce record the work they have performed without direct recompense. If you think the advertising value is great, I assure you that a fraction of the effort an executive officer expends on a four-day convention would yield far greater financial returns if put into his business direct. *Honor!* Yes—emphatically yes. But if it is an honor to be an officer it is an honor to be a *member*. The P. A. of A. represents thirty years of study, work, worry, devotion, and steadfastness of purpose. From the beginning the leaders have been men of ideals—ideals not always sublime, but seldom ridiculous and *never* tarnished or *defaced* by the query, "What will there be for me to gain?"

There can be no such excuse as "I can't afford to pay dues." You and I, and every individual getting his daily bread by photographic work, are living largely on the gratuity of those who have gone before and those of today who think not of themselves only. The insignificant "Ping-Pong Artist," the Colonels, and the "specialists," all are indebted from scores to thousands of times the amount of our trivial "dues." Shall we repay a little or "sponge" all?

"What would there be for me to gain?" I thought I could tell you all about it, but I found I had deceived myself. I became weary—and my pipe went out—and I went to the land of "dope." I saw myriads of tiny parasites slowly sapping the life-blood from a noble but helpless beast; then festoons of barnacles hopelessly impeding the progress of a Queen of the mighty deep. Suddenly these strange hosts appealed to me: "What is there for us to gain?" With wisdom not born of waking hours, I replied: "So long as the good Lord doesn't let you know you are parasites and barnacles—*nothing!*

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*A Uranium Intensifier which Does Not Give Coarse Grain.* The following is Dr. Lüppo-Cramer's formula for a one-solution uranium intensifier which does not cause granularity of the image:

| | |
|---|---|
| Water . . . . . | 10 ounces. |
| 10 per cent. potas. ferricyanide sol. | 2 ounces. |
| 10 per cent. uranium nitrate sol. | 5 ounces. |
| 10 per cent. potas. oxalate sol. . | 5 ounces. |
| 10 per cent. hydrochloric acid . | 1 ounce. |

The plate to be treated must be thoroughly washed beforehand.

## DEPTH WITH DIFFERENT LENSES.

A RECENT query from a reader raised once more the everlasting subject of the variation in depth that exists with lenses of different types. On this matter much misconception seems to exist. On the one side we have people declaring that depth depends solely on aperture and focal length, and is independent of all constructional features—which statement is scientifically quite wrong—and on the other side we find persons who seem to expect that every lens made gives a measurably different degree of depth.

It should be understood that constructional peculiarities of the lens only affect depth when the object in sharp focus is near, and that the only constructional peculiarity of importance is the position of the stop, the effect of which is very small. In the case of distant objects it is correct to say that depth varies solely with focal length and aperture, provided we consider the angular and not the effective aperture, and provided the lens is quite free from spherical aberration. In these circumstances the lens should give results as regards depth in exact agreement with the calculated results given in the tables, although the presence of even a small amount of aberration will upset this agreement. In point of fact the calculated results can only apply with exactitude to an ideally perfect lens; that is, to one that converges all the light received from a distant point to a perfect point focus, or produces a perfect cone of light bounded by straight lines. Such a lens does not exist. The image of a point is always a disk, and, however small the disk may be, a close analysis of the structure of the light pencil will reveal the fact that caustics exist in it, and that it is therefore not a perfect cone. A simple test is to throw the image of the point a little out of focus and examine the small disk of light then apparent. On one side or the other of the true focus the disk will generally show a dark centre bounded by a ring of light, which appearance indicates unmistakably the existence of caustics and of slight spherical aberration. In these circumstances depth must be affected, even if only to a very small degree.

The manner in which depth is affected by aberration can be easily proved by anyone possessing a camera and a lens of indifferent quality, say, a cheap "single landscape" lens. Prepare a small source of light by placing a pinhole made in a thin sheet of metal in front of an incandescent gas burner. As the experiment is only for illustration purposes, the light may be near the camera. Focus sharply on the pinhole, and then rack the camera in until the image is an appreciable disk. This disk must not be too large or the test will break down, therefore keep the disk as small as is convenient for after measurement. Next, keeping all the adjustments of camera and light exactly the same, make a series of exposures recording the exact size of the disk with every stop of the lens, from the largest aperture possible down to the smallest. Then measure the diameters of the disks obtained.

This series of disk images now represents the disk of confusion produced by each stop, and, according to theoretical laws governing depth in ideal conditions, the disk of confusion should vary in diameter in exact proportion to the size of the stop. Check the measurements against each other, it will almost certainly be found that the disks do not by any means vary in the same ratio as the stops. In one lens with which we

tried this experiment, we found not only that the ratios were all wrong, but that the two largest stops, and also the "naked" lens without any stop, gave disks of exactly the same diameter. All these stops were bigger than the one the lens was intended to be used with, but even with the stops that did not exceed the maker's maximum the ratios were completely wrong. As a matter of fact, the whole of the disks were much too small, and as a result the depth given by the lens was always considerably greater than the calculated amount. This was not a good lens at any aperture, but the conditions that prevailed as regards the disk of confusion were only exaggerated examples of what occurs to a certain extent with every lens. With a very finely corrected lens the variations may be unmeasurable, and such a lens will probably work almost exactly in accord with theory. A poor lens will depart from the theory, and will give greater depth with much inferior definition.

When depth varies on account of aberration, it sometimes varies differently on opposite sides of the point in sharp focus. The near depth may be increased, and the far depth diminished, or vice versa. Possible misconceptions may arise from two lenses of different character being compared, for as a rule it is near depth that is most usually considered. The difference between well and poorly corrected lenses is also often exaggerated, owing to the fine definition attainable with the former type. This sets such a high standard that an amount of confusion quite tolerable with the poor lens is intolerable with the other. Therefore, as regards depth, the fine anastigmat is likely to be unfairly judged if visual tests alone are relied on.

## THE DAGUERREOTYPE, THE AMBROTYPE, AND THE PHOTOGRAPH.*

THE word "photograph" is obtained from two Greek words—*photos*, light, and *graphos*, to write. Photography is the art of producing pictures by the action of certain sensitive substances under the action of light. It is said to have sprung from the discovery, some 300 years ago, that the luna cornea of the alchemists (fused silver chloride) would darken on exposure to light. Nothing more was known about this until in 1777 Scheele, the Swedish chemist, noticed that the power which produced this darkening resided chiefly in the violet end of the solar spectrum; this led to the use of non-actinic or red light in which to handle the sensitive plates, especially while developing and fixing them. The difficulty of fixing the pictures was one of the early troubles experienced; this was finally overcome by Sir John Herschel, who suggested the use of hyposulphite of soda.

The photographic picture is obtained in the daguerreotype process on polished metal plates, either of silver or of copper coated with silver.

Calotype is produced on paper.

Albumin on a film of albumin on glass.

Collodion on a film of collodion on glass.

Gelatin on a film of gelatin on glass.

The daguerreotype process was discovered by Niepce and Daguerre, and in short is as follows: A silver or silvered copper plate is highly polished and placed in a dark room on a china dish containing iodine. The vapor of this substance combines with the silver

* A paper read before the Photographic Section of the Franklin Institute, Philadelphia, by William O. Griggs, M.D.

of the plate and produces iodide of silver, a substance sensitive to light. This wonderful discovery, like many others, was the result of an accident. Daguerre had iodized some silver plates to use for an experiment he was making and carelessly left a metal spoon lying on one of them; upon raising the spoon some time afterward, he found its image clearly impressed upon the plate. From this he learned that iodide of silver was sensitive to light, and after a few more experiments the so-called daguerreotype was produced.

One of the first difficulties that Daguerre encountered was to have the plate properly polished. This was finally successfully accomplished by August Brassart, a silversmith of Paris, who sought out Daguerre and volunteered his services.

The next difficulty that beset Daguerre was properly to develop the picture. The discovery which solved this difficulty was also the result of an accident. He had made a number of exposures, and was as many times discouraged by his want of success in developing his pictures. One day he placed an exposed plate in a closet, intending at some future time to take it out and clean it and resensitize it. After leaving it there for a considerable time he removed it, and was very much surprised to find the picture beautifully developed. But as there were a number of articles in the closet, he did not know to which to attribute the wonderful result. He then began to remove the articles one by one, and after each removal he placed an exposed plate in the closet, and still the development went on. Finally after having removed everything he again placed an exposed plate in the closet and was again surprised to find the picture perfectly developed. After making a critical examination of the interior he discovered that some mercury had been spilled on the floor and rightly conjectured that the vapor of the mercury had caused the much-desired result; and further experiments proved this to be true. The picture was finally fixed or made permanent by dipping it into a weak solution of hyposulphite of soda.

To Giambattista della Porta, a Neopolitan philosopher of the latter part of the sixteenth century, belongs the honor of having been the first to contribute to the optics of photography an apparatus by which the size of the picture and its proper registration on the plate could be controlled. This was called the camera obscura, or camera as we term it at the present time, an article which is so common to you all that it is not necessary to describe it.

There is some controversy about the early history of the daguerreotype. It was so slow a process that it was possible to use it only for still-life pictures until the discovery that bromine used instead of iodine for sensitizing the plates rendered them speedy enough to permit of making portraits. The honor of this discovery undoubtedly belongs to Dr. Paul Beek Goddard, of Philadelphia, as in a paper read by him before the American Philosophical Society in 1843, he described the bromide process, exhibiting at the same meeting a daguerreotype which he said he made by that process in December, 1839.

The calotype process was the invention of Mr. W. H. Fox Talbot. It consists in spreading on a sheet of paper first a solution of iodide of potassium and then a solution of nitrate of silver; these react and produce iodide of silver in the pores of the paper. The paper is then well washed in water, contained in a porcelain basin, to remove the excess nitrate of silver. If this paper is exposed to light, the iodide

of silver will blacken. The picture is fixed by the use of hyposulphite of soda. The calotype pictures are all what are called indirect or negative pictures, and Talbot was the first to use the terms negative and positive.

The albumin process consists in dissolving a small quantity of iodide of potassium in properly prepared albumin obtained from white of egg. This is spread on a well-cleaned plate of glass, the dried glass is immersed in a solution of nitrate of silver, exposed to the light in a camera, and developed in the same way as the calotype; that is, by using a mixture composed of a solution of gallic acid and a weak solution of nitrate of silver to which a little acetic acid has been added; it is then fixed as usual with hyposulphite of soda. The advantages of this process are that the details are finer and the objectionable grain of the paper is avoided. It is not suitable for portraits, as it is not very sensitive, requiring about ten minutes in a good light to produce an impression.

The collodion process, which employs a film of collodion properly treated with the iodides and then immersed in a nitrate of silver solution, has the great advantage of being at least sixty times more sensitive than the albumin process and much easier of execution.

The next successful style of picture after the daguerreotype was the ambrotype, from the Greek words *ambrotos*, immortal, and *typos*, an impression. This was made on glass on which a properly prepared collodion had been spread, the lights being represented by silver and the shadows produced by a dark background visible through the unsilvered portions of the glass. The ambrotype collodion was composed of

| | |
|---|---|
| Collodion . . . . . | 8 ounces. |
| Bromo-iodide of silver . . . | 6 drams. |
| Hydrobromic acid . . . . | 6 drops. |

The manner of procedure is to make a bath containing 40 grains of nitrate of silver to the ounce of water. The bromide of silver is made by mixing

| | |
|---|---|
| Bromide of potassium . . . | 80 grains. |
| Nitrate of silver . . . . . | 80 grains. |
| Water . . . . . | 4 ounces. |

Dissolve the salts separately, then mix and wash in three changes of water and two of alcohol, then powder iodide of potassium 1 ounce and dissolve in alcohol 8 ounces and add to the above mixture.

Hydrobromic acid is made by taking

| | |
|---|---|
| Alcohol (95 per cent.) . . . | 4 ounces. |
| Water (distilled) . . . . . | 1 ounce. |
| Pure bromine . . . . . | 1 dram. |

Shake well and add to the collodion. The collodion is flowed over the glass plate and the plate dipped into the nitrate of silver bath. It is then exposed in the camera, developed with either gallic acid or sulphate of iron, and fixed in the usual way.

The first photography such as is used at the present day—the making of a negative in the camera first and then printing the positive picture from that negative—was done by what is known as the wet-plate process, so called because the plate was sensitive only while wet. This method was as follows: After cleaning the glass thoroughly it was given a coat of albumin by pouring over the plate a mixture of well-beaten white of egg and water. The plates after having been dried were put away and secured from dust. It was found that the collodion used in the next part of the process flowed more evenly and easily over a plate thus prepared. The collodion was prepared in the usual way by dissolving gun cotton in a mixture of alcohol and ether. The proportions are:

| | |
|---|---|
| Ether . . . . . | 3 ounces. |
| Alcohol . . . . . | 1½ ounces. |
| Gun cotton . . . . . | 16 grains. |
| Iodide of cadmium in powder . | 18 grains. |
| Bromide of cadmium in powder . | 6 grains. |

This was then flowed over the plate (by pouring it on the middle and then tilting the plate in different directions until entirely covered, when the collodion was poured off from the lower right-hand corner), and after it was set it was lowered into a bath composed of 2 ounces of pure crystallized nitrate of silver and 24 ounces of distilled water. The plate was raised from time to time from the bath and examined; if it presented a greasy appearance or showed lines upon it, it was returned to the bath until it presented a smooth homogeneous surface. It had to be placed in the camera and exposed at once while still wet. The plate was then immediately developed by pouring over it a solution composed of

| | |
|---|---|
| Protosulphate of iron . . . . | 1 ounce. |
| Acetic acid . . . . . | 12 drops. |
| Distilled water . . . . . | 1 pint. |

After which it was fixed in a bath composed of

| | |
|---|---|
| Hyposulphite of soda . . . . | 3 ounces. |
| Water . . . . . | 1 pint. |

This process requires such cumbrous apparatus that it is unsuited to the needs of the present day and is very little used except for lantern slides and window transparencies.

Since the advent of the gelatin dry plate, photography has made wonderful strides both in the picturesque and the useful. One of the good features of these plates is that they can be transported to great distances. They may be developed at leisure even months after having been exposed. Another great advantage over the old wet plate is their great rapidity. Until very quick plates were made it was impossible to correctly picture animals in motion. The first successful pictures of this kind were made by Mr. Muybridge. Some of our recent snapshots of horseraces prove the old idealized pictures of trotting horses to be mere caricatures of the truth, as these old pictures show the horses in all sorts of impossible attitudes. Rapid plates are also of use in photographing lightning flashes correctly—some of Doré's illustrations of lightning in Dante's "Inferno" resemble a zigzag staircase more than anything else. One of the pioneers in making pictures of lightning flashes was Mr. W. N. Jennings, of Philadelphia.

The first manufacturer of dry plates in Philadelphia was the late Mr. John Carbutt, a member of the Franklin Institute and one of our colleagues in the photographic section. Dry plates are made in three classes—slow, medium fast, and very fast. The very slow chloride plates are used for lantern slides and window transparencies; the medium fast, for landscapes, machinery, and architectural subjects, etc., while the most rapid plates are used for portrait and snapshot or instantaneous work, and *x*-ray pictures.

Window transparencies and lantern slides are made in two ways: One is to place the negative in a window with a sky exposure or to back it up with a ground glass and then to photograph the negative on the sensitive plate in the camera. Another, and I think a surer and quicker process, is to print the picture on the sensitive plate by contact and then develop it in the usual way. This is done by placing the negative in a printing frame and placing the sensitive side of the dry plate in contact with it in a manner similar to that of printing on paper. The amount of exposure can be determined by experience only, as it varies in duration. If the plate is exposed at a distance of eighteen inches from an ordinary six

feet gas burner, the variation will be from twenty to thirty-five seconds, according to the density of the negative.

The developer which I found to be the most successful is made after the following formula:

No. 1.

| | |
|---|---|
| Oxalate of potash | 3 ounces. |
| Water | 10 ounces. |

No. 2.

| | |
|---|---|
| Iron protosulphate | 3 ounces. |
| Sulphuric acid | 5 drops. |
| Water | 10 ounces. |

Use 3 parts No. 1 and 1 part No. 2. Should the plate develop too fast, add a few drops of a 10 per cent. solution of bromide of potassium.

In making up this developer care should be taken not to forget to add the sulphuric acid to the iron solution and to test it with litmus paper to see that it is strongly acid. If it is found upon mixing the two solutions that a brick-red precipitate is thrown down, the mixture must be thrown away, for if used it would ruin the plate. After being well washed the plate should be fixed in a solution composed of one pound of hyposulphite of soda and one gallon of water.

The use of very rapid plates with the flash-light has made it possible to picture the inside of mines and other very dark places; and they have proved a boon to astronomers, enabling them to picture the stars with great accuracy. A number of important astronomical discoveries have been made by the aid of photography. Many new stars have been discovered on the negatives that were unknown and invisible to the naked eye or the telescope. Wonderful and valuable pictures of eclipses of the sun, even to the extent of moving pictures, have been made. The transit of Venus has been photographed by its aid, and extra satellites to some of the planets have been discovered. As the earth is constantly in motion a carefully regulated clockwork is attached to the camera in order to keep the celestial object properly registered on the sensitive plate. Another of the interesting and educational features to which photography has been applied are the now almost universal life-motion pictures. Some of them are of course made up to illustrate the subject shown, others showing the various industries and modes of life in this and foreign countries are natural and are not only interesting but also instructive to those whose means will not allow them to travel to very distant lands. Another very interesting form of picture is the stereograph. This should properly be made with a pair of matched lenses. A division is placed in the camera, the two pictures taken on the same plate, and after being printed they are cut apart and transposed, as the lenses reverse everything. This is the ideal form of picture, as it gives the effect of a picture seen with both eyes and everything stands out separately, whereas the photograph taken with one lens presents simply a flat surface.

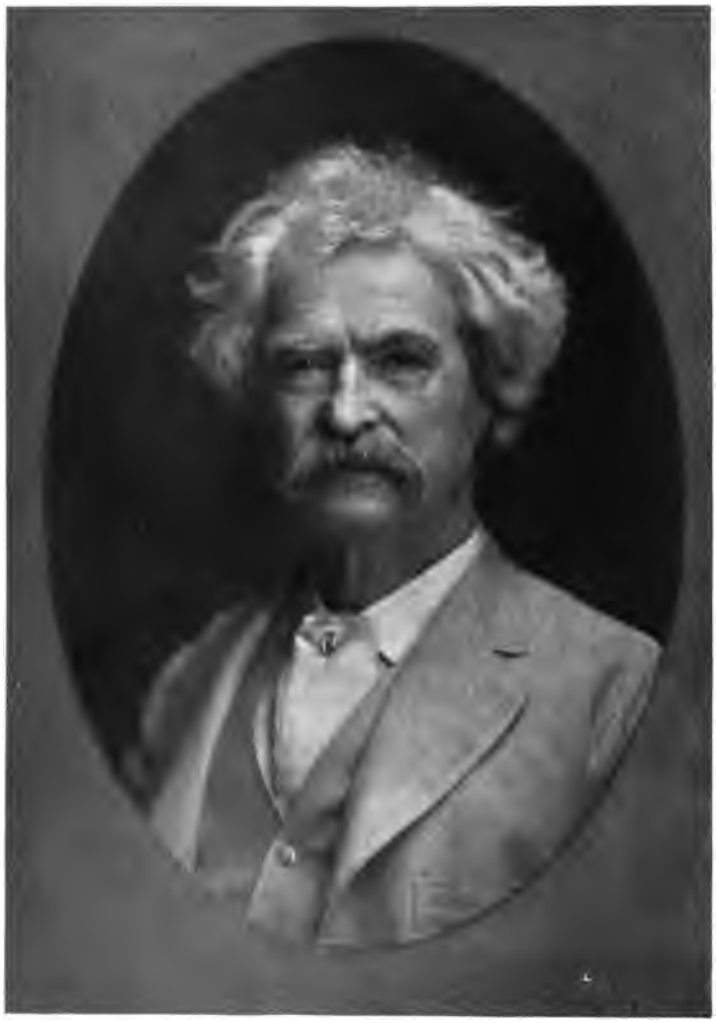
The latest and perhaps the most valuable and humanitarian use to which photography has been applied is in connection with the *x*-ray work. Here the two most comprehensive sciences, photography and electricity, go hand in hand for the benefit and instruction of humanity. By the use of these two great agents, deep-seated and obscure injuries have been pictured and a correct diagnosis made; bullets and other foreign bodies have been located and their removal made comparatively easy; and recently by the use of very rapid plates and large induction coils instantaneous pictures showing the opening and closing of the valves of the heart have been made.

By Hollinger, New York

Copyright, 1904
By A. F. Bradley, New York

The late Bishop Potter, of New York

By A. F. Bradley, New York



Copyright, 1907
By A. F. Bradley, New York

"Mark Twain"

By A. F. Bradley, New York

Ex-Senator Stewart, of Nevada

By The Falk Studio, New York

Flashlight made at the January meeting of the Fayette and Westmoreland Photo Society, Penna. Subject, E. E. Dexter, McKeesport.

THE WARD STUDIO, Connellsville, Penna.

1. Mrs. Robt. E. Ely
By Mishkin Studio

2. Portrait of "E. F."
By Bessie Buehrman

3. Master Schermerhorn
By A. F. Bradley

4. "The Ranchman"
By Alfred Stieglitz

5. Portrait. "Genre"

6. Self-Portrait
By Fleckenstein

7. Portrait
By Franz Grainer

8. Portrait
By Adelaide Hanscome

9. Fancy Study
By P. Bergon

10. "Miss Innocence"
By Dr. Nachfolger

11. Portrait
By R. Dührkoop

12. Study
By R. Demachy

13. Portrait
By Mishkin Studio

14. Portrait
By Notman and Son

# HATS IN PORTRAITURE.

BY SIDNEY ALLAN.

As a hat forms a rather important note in our street apparel, portraiture cannot very well get along without it. I believe most operators wish they could. It is at its best a rather awkward and cumbersome adjunct, that easily becomes obtrusive and does not easily lend itself to pictorial effects. In most cases a portrait is not improved by the introduction of a hat.

The stiff hats of men are particularly unhandy. There is nothing beautiful in their shape or texture. The stove-pipe and derby should be avoided if in any way possible. There have been portraits painted with men wearing opera hats, but it needed exceedingly clever management to make it effective. The hard lines were invariably lost in the background, and the form was merely suggested by the vertical streak of high-light. The only other way I can think of is to let the gentleman carry the hat in his hand. Then its lines may tell, particularly if the hat is half hidden by the figure, as that would break the undesirable parallelism of lines.

The slouch hat is easier to manage. It is pliable, the play of light and shadow can be controlled, and the outlines are softer. If you show the entire hat in profile, place it as near to the upper edge as possible (Fig. 12). It will produce more interesting shapes in the background. The three-quarter view is much better. In Figs. 6 and 14 it has been twisted in a picturesque mass which in a vague way helps to suggest the character of the wearer. But the most profitable way is to utilize the hat, if it be big enough, as background pure and simple, as Stieglitz has done in Fig. 4. If applied in that fashion it really lends a picturesque feature to the entire portrait. And my advice, therefore, is *to use hats as the immediate background of faces whenever an opportunity offers itself.* It is the safest and most artistic way (Figs. 8 and 10).

This also applies to ladies' and children's hats. It will, however, prove more difficult. Ladies are generally very proud of their hats. They are showpieces, and they wish them to be seen. Some of the hats are pictorially simply impossible. They cannot be subdued. And if a lady insists on a portrait of her hat rather than that of her face, patiently follow her whims. There is no way out of it. You cannot give her both.

I fear it would demand a large amount of tact and diplomacy to induce a lady to carry a new hat in her hand or to place it on her lap, and there would really be nothing gained by it, as a lady's hat is often such a confused shapeless mass that it would interfere with the other embellishments of the gown. Persuade your fair sitter to remove her hat whenever you can, but if this should prove impossible, try and make the best of it.

See if you cannot use it for contrast. The hat may be either lighter or darker than the bodice. Then with adequate light arrangement it will easily take its proper place in the tonal composition (Fig. 2). No matter if the bodice of this lady were white or black, the hat would look well in either case. This also can be noticed in Fig. 1. Fig. 13 represents an absolute failure so far as the management of the hat is concerned. It is an indistinct mass with sharp and ugly outlines that should have never been taken.

Frequently the material employed in the construction of the hat offers

in itself decided notes of contrast (Figs. 5, 7, 13). This facilitates matters. In Fig. 13 it is rather the result of light arrangement than of the actual difference of material. But Fig. 5 is an excellent example. There would have been too many white spots if the hat had been tilted the other way, as in Fig. 7. The plumes in Fig. 7 are effective, but simply because there are so many light tints in the picture. If the background or the lady's sleeve were dark, and the sweep of the suede gloves missing or darker in value, the plumes would become exceedingly obtrusive.

Uniformity of tint in the hat and bust are apt to bring out the face more strongly (Figs. 3 and 11), but the effect is more monotonous than otherwise, as, for instance, seen in Fig. 8.

Painters have frequently used the hat as a shadow maker. I do not believe that this is of any value in photographic portraiture, as people do not wish to see their eyes shaded. If done in a delicate way, as in Figs. 1 and 2, it is beautiful. But as soon as it is done too much it becomes detrimental to portraiture. The shadows of a hat, however, can be used to great advantage as an eliminator of details in the hair (Figs. 1, 2, 10, 11).

Fig. 10 is rather an odd composition. The hat is really the principal thing in the picture, and yet it does not interfere with the expression of the face. The hat, sure enough, is eccentric in shape, but not more so than many other milliners' productions. Whenever you come across a similar hat make the most of it. You will surely produce a quaint picture, but it in no way a standard. It merely shows that the lines of a hat are after all its most important feature.

The hats in Figs. 2, 7, and 13 form a similar conspicuous note. In the other pictures they do not attract any particular attention. Fig. 2 without the hat would need a completely different composition. It dominates the entire upper part of the picture. Miss Buehrman realized its value as a shape and mass. She had the advantage of a fairly picturesque piece of headgear. Grainer accomplished the same with a very ordinary sort of a hat. Mishkin sacrificed too much to the hat. The shoulder and the upper part of the hat have absorbed all the available high-light, and the face is squeezed in between them. It is a brilliant piece of work, but rather a study than a portrait. If a sitter is ready to order copies of a dozen different poses, this one will pass, but if only one pose is wanted, I fear it won't be considered.

Fig. 9 depicts a young lady fixing her hat. It is a charming picture, such as French amateurs are fond of making. It may possibly be available in portraiture, *i. e.*, theatrical portraiture. You will notice that the young lady is specially costumed for the occasion. It would not look the same if she were dressed in ordinary street apparel.

A hat is, after all, meant to serve as a protection and adornment of the head, and it should be depicted when it is crowning the head, at least where ladies are concerned, or not at all. The latter in most instances is the preferable way.

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*Test for Hypo.* The last drainings of wash water from plates or prints should be allowed to drip into water to which just sufficient of the following solution has been added to give it a faint pink tinge. If the color is changed or discharged, the hypo has not all been washed out.

| | |
|---|---|
| Potassium permanganate . . | 5 grains. |
| Caustic soda . . . . . | 20 grains. |
| Distilled water . . . . . | 5 ounces. |

# GOOD PRINTS FROM FLAT NEGATIVES.

BY RICHARD PENLAKE.

I RECENTLY had brought me by an amateur a set of valuable portrait negatives. They were, he said, taken by him in a hurry and were not all that he desired. The face in several cases merged into the background, while the negatives were very thin and flat, had little or no contrast. P. O. P. prints were required, and as I was not allowed to touch the film in any way, it may interest my readers to know how I secured a satisfactory set of prints from them. True, the methods are not new, and may be known to a few, but they are not known or used to the extent they deserve to be.

The usual way to secure contrast in a flat negative is to intensify it; of that I am quite aware, but it is not every worker who has an intensifier handy, or, if he has, cares to use it on a valuable negative which cannot possibly be replaced should anything go wrong. Mercury is probably one of the most widely used intensifiers, and when carefully used will give good and lasting results, but the negatives I intensified with mercury and ammonia eight or nine years ago have long since passed over to the dustman. They served their purpose most excellently, for a time, but they soon developed mysterious spots and markings and died quite young. The fault was mine I must admit, and should I ever use mercury again I shall take particular care that the negative is quite free from hypo, and that the plate is treated to a weak acid bath after bleaching, and well washed.

Fig. 1 is a fair sample of a print from a negative erring on the side of flatness. The background, it will be noticed, was unsuitable; it was of a light-gray color which photographed of a tint practically the same color as

the face. To the eye there was a great difference between the actual color of the background and the face, but to the camera the actinic power of both were practically the same, more particularly at the shadow side of the face. Hence the line of demarcation is indistinct and the cheek appears to emerge into the background. The extreme delicacy of the cheek line would not be improved by any kind of intensification, and the chances are that it would be lost entirely in the background. Some workers would probably advocate local reduction or intensification of the face or background, but with such methods I have never been successful. I prefer never to tamper with the gelatine film of the negative.

Now, there are two methods of obtaining a contrasting print from such a negative; there may, in fact, be more than two, but I will only write of those I have used, namely, the use of colored glasses over the negative while printing, and the copying of the flat print, both of which may be described in detail.

The trick of printing under colored glasses is no new idea; it was, in fact, first advocated nearly fifty years ago, but does not appear to be generally known. Green or yellow glass will increase the contrasts in a picture, while a blue or violet glass will have the opposite effect and assist one in producing a flat print from a harsh negative. The theory is as follows:

A green or yellow glass cuts out the deep blue and violet rays, leaving only the light blue, yellow, and green, which act upon the organic salts of silver rather than the chloride. The former have a shorter scale of gradation and so we get more contrast, that is to say, the shadows of the picture are deeper or richer than would otherwise be the case. A yellowish-green glass is the best to use. I believe the proper trade name for such glass is "single-flashed chromium green." The use of colored glasses, it may be mentioned, is confined to P. O. P. work, as with bromide and gaslight papers they have little or no effect. The great drawback to the use of colored glasses—or tissue paper if glass is not obtainable—is prolonged considerably, two or three days being necessary to get a good print if the light is not particularly good.

The second method, that of copying the original flat print, is quicker in the long run, as with care a new and satisfactory quick-printing negative can be easily secured. The secret of successful work is to proceed as follows: Take a rough P. O. P. print on the paper giving the reddest tone and the glossiest of surfaces, do not wash, fix, or tone, but pin up and copy in a dull light—so as to prevent the unfixed print darkening—as quickly as possible. If desired, however, the print may be simply fixed and washed, or even toned slightly, if the worker is sure the finished print will be of a red color. Some of the self-toning papers giving a red tone may be finished in the usual way and then copied. The actual process matters little so long as the print to be copied is a red one and has a glossy surface. Use a slow ordinary plate, not one of the isochromatic brands, and it will be found that the red in the half-tones and deep shadows will photograph very dark indeed, nearly black, in fact, while the high-lights, if the exposure is anywhere near correct, will be pure and bright. One therefore obtains a negative showing increased contrasts and with little or *no* grain, if the original print has been properly illuminated during the process of copying. If a little grain appears on the negative it will not show if prints are made on matt paper.

So far I have dealt only with the increasing of contrasts. In the picture

reproduced (Fig. 2) it will be seen that the sitter's right cheek has been brought out by simply lightening the background. The background originally used was a perfectly plain one, as a reference to Fig. 1 shows, but graduated or clouded backgrounds are now widely used by professionals, and with such grounds it is a common practice to pose the sitter so that the shady side of his or her face comes against the light part of the background and vice versa. Such a background, for example, would have saved the picture shown in Fig. 1, and therefore the way out of the difficulty was to cover the glass side of the negative with tissue paper and work over the part desired with a black crayon, the crayon work being, of course, put on the paper over those parts it was desired to print lighter. The green glass over the paper made printing much slower, so slow, in fact, that it would have taken me about a month to get off a dozen prints.

In order to facilitate matters I made a red print from the worked-up negative without the colored glass, and then copied the red P. O. P. print in the manner described; the result was a quick-printing negative which gives a print exactly as shown in Fig. 2, which to my mind, and judging from the original prints, is a distinct improvement upon Fig. 1.

## PERMANENT RED, GREEN, AND BLUE TONES ON DEVELOPMENT PAPERS.

In view of the increasing tendency toward the production of colored prints on development papers (*i. e.*, bromide and gaslight), some notes on the production and permanency of such should be of current interest, writes Mr. C. Winthrope Somerville in *The Amateur Photographer*.

Without going into the history of bromide toning, it is sufficient to say that the early production of colored prints on these papers was a speculation in the matter of preserving the same gradations in the toned print as in the original black and white, apart, of course, from the raising of the shadows from black to the tone color.

The effects of intensification and reduction which were produced by some processes were disastrous, not only in their unknown limits, but also in their unknown action on different intensities of the black and white image. In addition to this, there is no doubt that although a sufficiency of the toning material might be included in the solution for several prints, yet a visible difference in the intensity of the tone color in each succeeding print could sometimes be observed. This action has always been somewhat difficult to account for.

The instability of colors produced by uranium salts seemed, for some unknown reason, to check the desire on the part of experimenters to investigate the possibilities of other methods, and acted as a set-back to progress in this direction.

For many years the practice of color toning was confined to the pictorial worker, and no serious efforts were made by technical workers to investigate the matter. Two very important points, however, have been fairly obvious.

The first of these is that the intensity of the color contrasts is absolutely dependent on the condition of the

developed silver in the original print; that where exposure has been excessive and development curtailed, the silver being in an incompletely developed state, the resulting color tone is bound to be correspondingly weak, and that the most intense color deposit can only be secured by the original print being developed to infinity, the resulting contrasts, of course, depending on the quality of the negative.

The second point is that if an indirect process is used in which the silver image is first converted to a convenient silver salt to be reconverted into a metallic salt, the contrasts will be formed entirely by the tone color itself; and that where control of contrasts is required it must be obtained by a direct process in which the original black silver forms a part of the image.

Until recently the indirect processes were the most certain in their production and permanent in the results, for reasons which will be presently explained.

Of the metallic salts which produce the three colors mentioned in the title of this article, only those in which silver ferrocyanide acts the part of the tone-color receiver will be dealt with. In the case of the red the sulphide-gold process will produce practically the same tone, but it is hardly a popular possibility by reason of its expensive nature and lengthy operation. With the green and blue no other processes are available.

To the commercial producer of toned prints three things are of paramount importance: (1) Cost of production; (2) rapidity of production; (3) simplicity of production. Bearing these points in mind, let us deal with the various colors in turn.

### *Red.*

If an alkaline solution of copper sulphate be added to a solution of potassium ferrocyanide a brick-red precipitate with a tinge of crimson is produced, the intensity varying slightly up to a limited extent on the strength of the solution.

If an acid or neutral solution of copper sulphate be added to a solution of potassium ferrocyanide, a chocolate precipitate is produced.

Presumably both precipitates consist of copper ferrocyanide, according to the equation:

$$\underbrace{\underbrace{K_4\,Fe\,C_6\,N_6}_{156\;56\;72\;84}}_{368}\;+\;\underbrace{\underbrace{2Cu\,S\,O_4}_{127\;64\;128}}_{319}\;=\;\underbrace{\underbrace{Cu_2\,Fe\,C_6\,N_6}_{127\;56\;72\;84}}_{339}\;+\;\underbrace{\underbrace{2K_2\,S\,O_4}_{156\;64\;128}}_{348}$$

$$687 \qquad\qquad 687$$

Copper ferrocyanide is a remarkably stable salt, insoluble in acids, resisting to some extent the solvent action of very weak, but completely soluble in caustic, alkaline solutions. In the pure state it is almost impervious to the action of sulphuretted hydrogen.

In producing this salt on a bromide print by the old Ferguson process, the operation was a prolonged one, owing to the fact that in the combination of copper sulphate and ferricyanide of potassium the ferricyanide, being in a neutral or slightly acid condition, acted very slowly in converting the silver into silver ferrocyanide. It has been said that copper ferricyanide was formed first, causing an obstruction to the formation of the ferrocyanide. Some experiments to prove this latter have been partially successful, but not completely.

By employing the alkaline method the process is much more rapid, since the alkaline ferricyanide is a far more powerful oxidizer.

In the alkaline process also there is an absence of stain in the whites due to the presence of a comparatively large volume of ammonium carbonate, which, being a non-caustic alkali, will not decompose the ferrocyanide, but prevents the tendency of a com-

bination of the ferrocyanide and the gelatine and organic texture of the paper as occurs in the acid process.

The combination of a copper salt in the form of copper sulphate dissolved in a large excess of ammonium carbonate saturated solution, with the after addition of a solution of potassium ferricyanide, forms an inexpensive single solution, which will tone a print in three to four minutes. See formula for red.

There is a condition essential to the permanency of all these processes which will be given later.

*Green.*

The desirability of this color for graphic representation of any kind does not come within the scope of these notes, beyond the fact that there is an increasing demand for it and that it should be of an olive or Italian shade.

Of the salts most favorable to its production from all considerations, continued research shows vanadium to be the most suitable.

If ammonium vanadate be ignited, vanadium oxide is formed, and this being completely soluble in hydrochloric acid a solution of vanadium chloride, $V_2Cl_2$, or VCl, or $V_2O_2Cl$ (there is some difference of opinion in various authorities) of known strength is formed. The commercial vanadium chloride, as purchased in the paste form, contains a large amount of the higher oxides of vanadium, which are insoluble, amounting to 10 or 15 per cent. of the weight. If purchased in this form, an estimation of the amount of available vanadium should be made, the drop reaction with potassium ferrocyanide being a simple and convenient method.

In taking for an accepted fact that the color tone produced by the application of vanadium chloride to silver ferrocyanide is due to the formation of vanadium ferrocyanide, the writer is fully aware of the absence of satisfactory information on the point, and till quite recently based his conclusion on the product of the addition of vanadium chloride to a solution of potassium ferrocyanide. A qualitative analysis of the precipitate by ignition indicated iron and vanadium oxides with cyanogen given off, the filtrate containing, as far as could be ascertained, nothing but potassium chloride in hydrochloric acid. The equation, however, does not seem to fit in. Strenuous effort for information on the point has brought from a reputed authority in Germany the following formula for vanadium ferrocyanide, $V_2O\ FeCy_6$, which, apparently, is a vanadyl compound similar in construction to the uranyl salts.

Vanadium ferrocyanide, produced as above, seems to be a remarkably stable salt, insoluble in acids, about as impervious to sulphuretted hydrogen as the copper salt, but possessing decidedly less resistance to non-caustic alkalies.

An acid solution of vanadium chloride containing potassium ferricyanide applied to a bromide print, after somewhat prolonged action, produces a bronze-green color in the shadows, the lighter parts being but feebly attacked.

If, however, a ferric salt be included, the action is entirely different. In this case the silver assumes—according to the quantity of iron present—a slate-blue tint, the intensity of which does not increase beyond a certain point. Just before this point—the exact determination is rather a difficult matter—no vanadium, or very little, is deposited, and after it has started to deposit no further accumulation of the blue—due to the iron—occurs.

On washing the print the vanadium reagent stain and the blue coloration can be completely eliminated, leaving

an olive or Italian green color tone behind, the shade differing with platinomatt and ordinary papers. But at this stage the color is not permanent, showing a similarity of state to the red and blue.

To preclude a precipitation between the ferricyanide and the vanadium a preventive such as oxalic acid is required; a citrate will not do, as it prevents the toning action.

Of the ferric salts the chloride seems less suitable than others, such as a citrate or oxalate, since there is a distinct tendency to bleaching with its use.

The adjustment between the iron and the vanadium has to be exceedingly fine to obtain the best results, but once fixed the process may be made absolutely automatic in its action in that prints allowed to tone for a definite time in a sufficiency of the constituents will all be of the same character as to color intensity; and more than this, the same solution diluted to any increased volume will give precisely the same color tone if the toning time be increased proportionately. For commercial purposes this is of great value, since it does away with the necessity for the personal judgment of skilled operators. The vanadium is not an expensive salt.

*Blue.*

There is little to be said on this process beyond the choice of the ferric salt, the inclusion of a precipitate preventive, and the use of nitric acid in preference to hydrochloric to prevent the tendency to bleaching. In all these it is similar to the green, and, like it, prints may be toned in two minutes or longer, according to dilution, and in a similar automatic manner.

*Permanency.*

In all these silver ferrocyanide processes it is conceivable that some very short period must elapse between the formation of the silver salt and its reconversion by the tone color reagent into each particular metallic salt.

Short as this period may be, and it is probably infinitesimal, at whatever stage the reaction is stopped, providing it is before the infinity limit, there is always a considerable amount of silver ferrocyanide unconverted. If this is left in the print two evils will result: (1) The silver ferrocyanide will infallibly darken on exposure to light, with consequent degradation of the print; (2) the affinity of silver ferrocyanide for sulphur will rapidly cause the absorption of the least traces in the atmosphere.

The application of a hypo bath is necessary for the elimination of the unconverted ferrocyanide, and as this must of necessity be an acid one, the acid chosen must be incapable of precipitating sulphur from the hypo; it must not be combined with a sulphite, as there is some risk of destroying the colors, presumably by reduction.

Boric acid is one of the most suitable, and a sufficiency of this, in combination with a 20 per cent. hypo solution, is very efficient, a few minutes' immersion only being necessary for complete elimination of the silver ferrocyanide, the completeness of the reaction being visible by the change of color in the print. A few minutes' washing removes the hypo, but the true color of the tone is not seen untill the print is perfectly dry.

*Practical Tests for Permanency.*

Time, of course, is everything, but in the writer's experience two practical tests have been made with prints produced by the foregoing reactions:

1. Three prints in the three colors have been exposed, half covered, to a south aspect window for ten months, and show not the slightest difference between the covered and uncovered parts.

2. Three prints have been subjected, in a dry state, to sulphuretted hydrogen under the following conditions: In each case 0.2 gram of pure sodium sulphide contained in a porcelain basin was covered with 5 c.c. of 25 per cent. HCl and placed in a half-plate plate box, on the cover of which the top half of the print was pasted, with the face down to the basin, the cover placed on and left for thirty minutes, the bottom half of the print being outside the box. Such a quantity of sodium sulphide would give off 0.08 gram of $H_2S$ over an area of twenty-eight square inches. When the prints were removed they retained fumes of $H_2S$ for three or four minutes, but showed no tendency to sulphiding.

The advantages accruing from the employment of processes based on the foregoing may be summarized as follows:

1. With the exception of the red, the original image forms part of the tone color, and by curtailing or prolonging the toning time the shade of color is controllable at will.

2. The processes are automatic in their action.

3. Rapidity and simplicity of production.

4. Permanency to atmospheric conditions.

*Formula for Red.*

Make up the following in the order given:

| | |
|---|---|
| Ammonium carbonate (saturated solution) | 1 ounce. |
| Copper sulphate | 10 grains. |
| Potassium ferricyanide | 25 grains. |

The precipitate which forms when the copper is added to the ammonium carbonate will be redissolved.

Toning should be continued until the shadows are converted. It is then rinsed for a minute or so and placed in a hypo bath of the following composition for five minutes, and then washed for five minutes:

| | |
|---|---|
| Hypo | 2 ounces. |
| Boric acid | 200 grains. |
| Water | 10 ounces. |

*Formula for Green.*

| | |
|---|---|
| Ferric chloride | 1 grain. |
| Oxalic acid (saturated solution) | 60 minims. |
| Vanadium chloride (pure) | 2 grams. |
| Nitric acid | 5 minims. |
| Water to make | ½ ounce. |

Then add, stirring the while—

| | |
|---|---|
| Potassium ferricyanide | 1 gram. |
| Water to make | ½ ounce. |

Tone from one to two minutes; the longer the immersion the lighter the green. Wash ten minutes and immerse in hypo bath given for red tones. Wash five minutes.

*Formula for Blue.*

| | |
|---|---|
| Ammonia alum (10% solution) | 50 minims. |
| Potassium ferricyanide (10% solution) | 10 minims. |
| Potassium oxalate (10% solution) | 30 minims. |
| Ammonia iron alum (10% solution) | 12.5 minims. |
| Hydrochloric acid (10% solution) | 2.5 minims. |
| Water | 1 ounce. |

Tone until the desired shade is obtained, and wash free from stain. Then immerse in hypo bath and wash as for green.

## POSTCARDS FOR THE PROFESSIONAL.

In this paper we are concerned with the photographic postcards rather than with the picture postcard of the shops. The world-wide exploiting of the picture postcard has forced the postal authorities everywhere to modify their regulations, so that we can send a photograph, with a word of personal greeting, all over the world at a nominal charge, in place of tedious letter-writing and a higher rate of postage. This possibility has opened up a new field of pleasure and profit for the photographer, offering a readily available outlet for his work. Apart from the pleasures involved in this, the photographic postcard offers possibilities of profit even to the individual worker with limited facilities; for there is always a market for cards of special or local interest, in circumstances where the commercial postcard does not enter or can have no place for one reason or another.

### *Subjects.*

Before taking up the technical details of methods and materials, let us look for a moment at the range of subjects available for photographic postcards, as far as the professional is concerned. The vital point here is that the professional's postcards, made to give pleasure to his friends or intimates, should be sharply differentiated from the commercial sorts by their personal associations or semi-intimate interest, shown in the choice of subjects and their treatment. Thus the subjects utilized will come, most largely from among those things in which the maker's interest is shared by his friends.

### *Around Home.*

For example, who can question the interest of a series of home interiors by daylight, preferably showing a familiar figure or two, as the good wife at her piano or busied with her needle; or a similar series made at night, by flash-light and gaslight combined, showing the familiar aspect of the home when the lamps are lighted; or a series of home portraits with home accessories, such as the children with their toys, the boys at their lessons, and so on? Around the house, especially if it be a suburban or country home, there are many postcard subjects which will give great meed of pleasure to those who may be far away.

### *Making It Pay.*

When we consider subjects from the viewpoint of profit, it may be that we are amateurs willing to make pocket money with the camera; or we may be professionals seeking to add a side line of attractive postcards for sale or advertisement. Here we look at subjects from the selling point of view. The vital thing is to select subjects which are not hackneyed or overdone; to get something which cannot be had in the shops or seen at the news-stand postal display. If we make postcards of local views, they must differ from the commercial sort in the point of view chosen, or in the method of treatment. Thus a view of the church will always sell better if a small portrait of the pastor is "inserted" at a corner; or a familiar town scene may be made to seem different by being taken at sundown with sky effects, or by night, or under a covering of snow. Similarly, we may find a good subject in six puppies placed in a row, or a few kittens at play, or a troupe of performing dogs, and so on. In this field success depends on novelty and distinctiveness; there is room for endless ingenuity and

the use of imagination or "mother wit." One success will amply repay the labor of a dozen failures.

*Printing Processes.*

The processes employed in making photographic postcards are, of course, the everyday printing methods, with which the reader is already familiar, viz.: blue-print, sepia, kallitype, plain silver, print-out (gelatino and collodiochloride), bromide and development (gaslight) emulsions, platinum and carbon. Of these, blue-print, sepia, bromide, print-out (ordinary and self-toning), and "gaslight" postcards are commercially obtainable at most photographic supply stores. More than nine-tenths of the photographic postcards produced are made on commercial, ready sensitized cards, most largely of the "gaslight" class, and, beyond a doubt, the use of commercial cards is more convenient and much more economical than the attempt to manufacture them for one's self on a small scale.

*Card Stock.*

One of the chief difficulties in the home preparation of postcards is the finding of suitable card stock. This must be absolutely pure for photographic sensitizing, clear and bright in color, and sufficiently tough to withstand the frequent wetting and handling to which it is subjected. Firms who make papers especially for photographic use, such as the Mittineague Paper Co., Mittineague, Mass., could probably supply such cards to order. This firm's Strathmore water-color paper, obtainable in sheets from any artist's supply store, is very suitable for rough-surfaced cards. Whatman and Arnold's handmade heavy drawing papers are also adapted for postcard work where cost is not the chief factor. The stock chosen should be cut to the official size, 3½ x 5½ inches, and the front side imprinted according to the postal regulations before use. For this it will be sufficient to follow the style of any recently issued picture postcard. The printer to whom this work is given should be instructed to avoid handling the back surfaces of the cards as much as possible, as any greasy or perspiration marks will offer difficulties in the sensitizing of the cards. To this end, many amateurs who make their own cards imprint the fronts with a rubber-stamp outfit made for the purpose, doing the work after the cards are finished. This cannot be commended.

*Commercial Cards.*

Undoubtedly the most convenient method of printing postcards is the use of commercial gaslight or development emulsion cards. These are readily obtainable in a wide range of varieties, permit one to print at night or by artificial light with all its advantages, are simple in manipulation and altogether satisfactory in results when handled with ordinary care and intelligence. As gaslight cards are more generally used at present than any other sort, we may profitably take them first in a brief survey of the commercial cards available.

*Velox.*

Almost all manufacturers of gaslight papers offer two or three grades or varieties of gaslight postcards. Thus, we have Velox postcards as follows: Velvet, regular and special; special portrait; special rough surface; glossy, regular, and special, and special and regular royal, these last offering a card with a cream-tinted base, suited for sepia tones by redevelopment. In addition to these, which are furnished in the regular size, 3½ x 5½ inches, we have velox double postcards 3½ x 11 inches, furnished in velvet, special and regular; portrait (special) and rough (special); also the Brownie postcards.

*Cyko.*

Cyko postcards are made in three surfaces: normal grade, glossy, semi-matt, and studio (velvet); also in professional grade: (glossy, semi-matt, and studio), and three sizes, viz.: 3½ x 5½, 3½ x 11, and 3½ x 12 inches.

*Argo.*

As with Argo development papers, so with Argo postcards; there are so many grades and varieties that the list here given may be incomplete, as I have no official data at hand. From use, however, I can mention: Argo portrait glossy, matt and velours, for soft effects and for intense or contrasty negatives (regular and special grades); and portrait Argo rapid, glossy, matt and velours, for soft effects. Doubtless there are other varieties.

*Artura.*

There are three distinct varieties of Artura postcards, viz.: non-curling, carbon black (rapid), and carbon green (slow), all made in half-matt surface only.

*Kruxo.*

The makers of Kruxo paper offer two varieties in postcards, viz.: Kruxo cards, non-curling, with three surfaces: semi-matt, dead-matt, and glossy; and Acme-Kruxo, especially adapted for portraiture and soft effects, in two surfaces: semi-matt and dead-matt. Acme-Kruxo possesses a remarkable degree of latitude in adaptability to different classes of negatives.

*Printing.*

In the actual printing of postcards the reader will follow the ordinary procedure advised for the particular variety of card employed. First in order of simplicity come blue-print, sepia, and self-toning print-out cards. These require daylight and preferably sunlight. Next come gaslight cards, which may be had in endless variety for all sorts of negatives and subjects, and can be handled most advantageously in gaslight or other convenient artificial light. The operations are few and call for very little time: exposure (a few seconds), development and fixing. By this process a hundred postcards after supper is entirely practicable. After these we have the print-out cards which call for daylight time, several washings, toning and fixing, usually more than the majority of amateurs can give. Finally, we have the bromide cards, made chiefly for professional workers who produce cards in large quantities. These require very little time for their production, but the equipment must include a dark-room, with safelight for manipulation and a convenient light for systematic and uniform exposure, development, clearing, and fixing baths.

*System.*

If the reader desires, for any reason, to produce postcards in quantities of over one hundred at frequent intervals, as may be the case with many amateurs, the manipulative part of the work should be carefully systematized. In this work the negatives are classified according to their printing qualities and characteristics; they are next prepared for printing, masked, etc., so that they can be handled quickly; the exposures are all put through at one time under uniform conditions, each class being handled together; a postcard printing machine is used to simplify exposure; the exposed cards are developed all at one time by one worker and passed to an assistant for fixing and washing. In this way every moment of time is utilized and as many as seven hundred cards can be finished within a few hours.

*Printing Machines.*

Several varieties of postcard printing machines are available for those who work on a large scale. To describe these in detail would occupy more space than can be given here, but the interested reader can readily investigate the different models by writing for descriptive literature to the following makers: Artura Paper Co., Columbus, Ohio; Kilborn Photo. Paper Co., Cedar Rapids, Iowa; Burke & James, Chicago, and the Vote-Berger Co., La-Crosse, Wis. Most of these use electric light as the illuminant in exposure, and are priced at from $10 to $50 or more. They are intended for the making of development prints of any size from postcards to 11 x 14 inches, and undoubtedly offer great convenience and economy where large quantities of cards or prints are to be produced in a short time or at a low cost.—*The Photo-Miniature, No.* 94.

## INSTANTANEOUS TELEPHOTOGRAPHY.

THE possibilities of telephotography are only just beginning to be realized; it is rapidly coming to the front, however, and has a quarterly magazine devoted entirely to this branch of photography. The following extract on instantaneous telephotography is taken from *The Telephoto Quarterly:*

Before attempting instantaneous telephotography at any but the lowest magnifications, it is necessary to have a clear idea of the relation between magnification and working aperture. Most telephotography of this description comes within what may be termed the normal conditions of exposure and, consequently, the rule of multiplying the exposure that would be required if the positive lens only were used by the square of the magnifications holds good. But as it is frequently desirable to give a good deal less than the correct exposure, the instantaneous telephotographer may be recommended not to trouble himself much about the square of the magnifications rule, but to pay attention chiefly to the aperture at which he is working. That aperture, as pointed out in last quarter's *Memoranda*, is the aperture of the positive lens multiplied by the magnifications. If a lens working at $f/6$ is combined with a telenegative of any suitable focus, and the separation and camera extension are arranged to give 4 magnifications, the working aperture is $f/24$; if the positive is stopped to $f/11$ the aperture of the telephoto system becomes $f/44$, and so on.

To anyone making this simple calculation the limitations of instantaneous telephotography are quickly obvious. You *can* get instantaneous photographs at $f/44$, but the conditions have to be very favorable indeed, and brilliant results are hardly to be expected. For all practical purposes—although I have myself sometimes gone farther with fair success—I think the limit may be placed at $f/32$, while for such weather as is usually available in any but a first-class English summer the effective range of possibilities in shutter work is bounded by $f/22$.

There are a few specially constructed tele-objectives which come well within these limits and which for a certain class of hand-camera work may be strongly recommended. Of these the most notable is the new Zeiss tele-lens described elsewhere, which has an equivalent focal length of about 18

inches, requires a camera extension of only about 6 inches, and works at $f/10$. There are also the Dallmeyer combinations in which a portrait lens working at $f/3.5$ is used as the positive. In both these cases the positive lens cannot be used separately for ordinary work, and the field covered sharply at full aperture is small. In the Zeiss lens only one focal length is available, and in the Dallmeyer the combination is rather cumbersome and costly. For special purposes both have their uses, but the average worker will probably prefer to know the possibilities of the more useful combinations in which the positive is a high-class anastigmat that can be used separately for the purposes of everyday photography.

Bearing in mind what was said above as to $f/22$ or thereabouts being the everyday limit of working aperture for quick work, it is clear that a positive with an aperture of less than $f/7$ is not of much use in instantaneous telephotography, the amount of possible magnification being so restricted. Even when the positive works at $f/5.6$ the aperture of the telephoto system becomes $f/22.4$ at 4 magnifications. One's thoughts, then, fly naturally to the various $f/4.5$ lenses on the market, possibly even to the notable $f/3.5$ Tessar.

But there is disappointment in store for those who carry these fancies into practice. I have had through my hands some of the very finest $f/4.5$ lenses made, and have found them most unsatisfactory for telephoto work. Perhaps the reason is that their corrections are so elaborately good that they are peculiarly sensitive to disturbance by the addition of the tele-negative. Anyhow, I have yet to find the $f/4.5$ lens which will work well as the positive of a telephoto system without stopping down, and I counsel my readers to satisfy themselves by practical experiment on this point before procuring such lenses for telephotographic purposes.

On the other hand, there are $f/5.6$ lenses which work very fairly well as tele-positives at full aperture. They will not then cover the plate which in ordinary photography they fill with sharp definition, but a 7 inch lens in combination with a tele-negative will give a good 5 inch by 4 inch picture at 4 magnifications, and that is as much as, perhaps, we ought to expect. Taken all round, I have no hesitation in saying that, at the present stage, the best combination for instantaneous telephotography is one in which the positive works at $f/5.6$. This gives nearly 3 magnifications with a working aperture of $f/16$, nearly 4 with a working aperture of $f/22$, and nearly 5 with a working aperture of $f/32$.

When the aperture of the positive lens is settled it is necessary to determine its focal length and that of the tele-negative to be combined with it. This is not such an easy matter as it looks. The circles of illumination produced by telephoto combinations are relatively small, and they vary in the case of different positives. It may save beginners trouble if I state that in my own work I use a 7 inch positive combined with a 3 inch negative, and this at 3 magnifications has a circle of illumination of about 6¼ inches. In practice it may be reckoned on to cover pretty sharply a quarter-plate at 3, and a 5 inch by 4 inch at 4 magnifications, the apertures being approximately $f/16$ and $f/22$, and the equivalent focal lengths 22 and 28 inches respectively. This I regard as the best all-round telephoto combination for instantaneous work at present available, provided, of course, the right lenses are selected.

We now come to the question of cameras. The ideal camera for any sort of instantaneous work is, I suppose, a twin lens Reflex, and such a camera

would be a valuable acquisition indeed to the serious telephotographer. But to pair telephoto lenses is an extremely difficult and delicate matter, and, though I am told that it *can* be done, the best opticians consider that the result when attained would not be worth the time and trouble which would be involved. The alternative, of course, is to use one of the many single-lens Reflexes on the market, bearing in mind that it is one thing to handle those beautiful instruments when fitted with ordinary lenses, and quite another thing to manage them successfully when not only is the vibration caused by the bedding of the mirror—infinitesimal as that is in the good patterns—multiplied considerably, but also the balance is awkwardly modified by the tele-mount and hood.

It is a good plan with a Reflex to work at say 3 and 4 magnifications only, and to have the necessary extensions marked on the camera, and the necessary separation indicated on the tele-mount. As pointed out above, if one is working with an $f/5.6$ positive the aperture becomes $f/16.8$ at 3 magnifications and $f/22.4$ at 4 magnifications. If the tele-negative is of 3 inch focus, the camera extension in the first instance would be 6 inches, in the second 9 inches. Of course, if one desires to work precisely at $f/16$ and $f/22$ this can be arranged for by sending camera and lens mount to a competent firm to be carefully marked. The magnifications will then be very slightly less than 3 and 4 respectively.

Excellent work can be done with cameras other than Reflexes when it is possible to focus beforehand, and a focal plane shutter is by no means a necessity. But for instantaneous telephotography there is nothing like a good Reflex, although it may take some little practice before it can be satisfactorily used in the hands. Pending proficiency, and where circumstances allow, it can advantageously be worked on a low tripod.

## THE GENESIS OF A MODERN LENS.

[THE modern lens is an instrument of wonderful precision and represents the combined efforts of the mathematician, glassmaker, and optician at their highest development. Few photographers realize that the pieces of glass forming the eye of their camera are so wonderfully and accurately made as the following interesting account from one of our German contemporaries shows.—ED. W. P. M.]

Assuming that all the calculations are satisfactory, the first thing to be done is to make a trial lens. As a rule, a short focus one is chosen. The mathematician gives the exact construction data; that is, the radii and thicknesses of the individual lenses, and the first thing to do is to prepare test glasses for each radius. These play a most important role in the practical manufacture of a photographic lens, and cannot be dispensed with as they give accurate control over the radii. After two brass patterns have been made to the given radii—these are concave and convex segments of circles of required radii, which are used for controlling that of the rough lenses—a pair of test glasses are made out of thick plate-glass for each radius, one concave and the other convex, and are worked to the patterns with various sized emery up to the finest grade. Then the patterns are discarded and a spherometer employed. This instrument is extremely precise, and enables one to control the radii easily to $\frac{1}{10000}$ millimeter (= 2.50000 inch). When the

test glasses are satisfactory they are polished, so that the one fits accurately into the other. There are two faults which may occur in making these test glasses: The one is variation from the spherical form, which can be easily controlled by the test glasses themselves through the formation of the so-called Newton's rings. The extremely thin film of air enclosed between two glasses shows by transmitted and reflected light color phenomena, which appear, according to the degree of accuracy attained, in broad or narrow concentric color rings, which finally fade into white when the two surfaces accurately fit. Variations from the spherical form will then show themselves as color rings. By the other fault is meant a variation from the desired radius, and this is shown by the spherometer. A good pair of test glasses, when placed together, must make colored rings disappear, and the spherometer must show the exact radii.

The test glasses are only used to control the polishing of each individual lens surface, as, by placing them together, one can at once tell whether the necessary exactness in manufacture is attained; that is, whether the lens has actually the radii calculated by the mathematician. In order to give the lay reader an idea of the precision attainable by this method, it may be mentioned that an error of $\frac{1}{20000}$ millimeter (=1.50000 inch) can be easily determined. That the placing together of the finely polished lens surfaces and the test glasses must be done with the greatest care and only when they are absolutely clean is obvious, for a grain of dust between them may ruin the lens surface. Fraunhofer was the first to use test glasses.

Let us return to our test lens, and as this is of little interest we will assume it finished. It is then submitted to a very vigorous testing. In most lens factories specially constructed apparatus is to be found, which gives absolutely perfect test results. If these are satisfactory the manufacture can be proceeded with.

Naturally there are several preliminary matters to be attended to; thus the radii for lenses of all foci have to be calculated, the brass pattern moulds, the grinding tools, and the test glasses made.

When one pictures the long tedious work of calculation, and, further, how much time and trouble the preliminary work requires before the actual manufacture is begun, it will gradually be borne in upon one that only the most careful manufacture, combined with the most exact calculation, can give the comparatively cheap price of the modern anastigmat.

As a rule the whole stock of the required kinds of glass are purchased from the melters. This is done to avoid too frequent calculation of the lens. For, although the same ingredients are used for one and the same type of glass, the subsequent meltings have rarely the same optical constants; that is, the same characteristic refraction and dispersion.

The blocks obtained from the glass works are split up into pieces by diamond saws or wheels into convenient sizes for the single lenses. Then these pieces of glass go to the grinding room, where, with white river sand and special machines, they are worked up until they have the shape of the finished lens. After this they are taken in hand by the fine polisher, who works the two surfaces of each lens with emery of ever-increasing fineness. The principal points to be observed are that each surface has its proper radius, and that it is free from scratches and holes.

When this is done the surfaces are further polished, so that a reflected image can be seen in them, and then

the lenses go to the centrer. On a lathe with horizontal spindle this man cements them on an accurately running pike or mandrel, directs the lens toward a contact lever, the point of which lies on the centre of the lens, and then cuts away the edges with a special arrangement until the lens has its destined diameter. The important point in this is that the glasses are running truly central after being cemented, and that after centring the optical axis coincides with the axis of the lens, which with convergent lenses is the thickest part, and with divergent lenses is the thinnest.

After this the polisher receives the lenses thus prepared, and cements them to a corresponding dish, and then the polishing disks are moved by special machinery with regular movement. This is continued until the surfaces are absolutely clean and fit the test glasses accurately. If the test is satisfactory the lenses again go to the cementing room. Most lens systems are composed of several lenses cemented together. The cementing is effected with Canada balsam, which is rendered fluid by heat. The lenses, heated to the same temperature, are brought into contact and pressed together, so that an extremely thin film of cement remains between them. On a specially constructed apparatus, which is provided with an ether level, the two cemented lenses are adjusted; that is, shifted one on the other until the axes of the two lenses absolutely coincide. After the lenses have undergone another superficial test —the accurate test is applied to the finished lens—to see whether by accident a wrong glass has been used, they proceed to the mounting room; the optical part of the work is done.

*Mounting the Lenses.*

In the meantime the mounts have been finished in the rough, as the actual lens fittings are turned out of brass or copper on a lathe. The tube is also turned out, provided with a slit, and the iris or other diaphragm inserted. When the screws and flanges are finished it goes to the engraver.

Then the fitter of the lenses begins his work. This very delicate operation must be carried out with the greatest accuracy, as a badly set lens seldom gives good pictures. If the lenses have been previously set by the level by the centrer the work is comparatively simple, when the fitting has been well turned, and the objective consists of only two lenses. It is much more difficult when there are three lenses to the system. In this case it is the special work of the fitter to arrange the lenses in their cell, as the cementer can only adjust two lenses with his apparatus. There are several methods of fitting lenses, but for precise instruments the method of edging is preferred. On the rotating spindle of the lathe the cell is screwed. It is given a very fine edge, the lenses are placed in it, and the whole heated so as to slightly soften the cement between the lenses. With the straightening board or fork they are now adjusted, until a reflected image in the rotating surfaces is absolutely stationary. In this position the lenses are fastened in by pinning in the edge. When finished the mount is lacquered, and the complete lens goes to the studio for testing. The testing processes differ, but when the lens has passed these it is ready for the market.

This is practically the whole process of the genesis of a modern lens. Only those explanations have been given which will make clear to one and all that our modern anastigmats are instruments of precision and involve an enormous expenditure of care and time, and that they are well worth the price asked for them.

## 1909 KODAK ADVERTISING CONTEST—$2000 IN GOLD.

THERE'S progress in photography. Every year its application becomes broader; every month it is adapted to new purposes. And among its most important uses is advertising. Its first application in that direction was simply in showing the goods. Today a glance through any of the leading magazines will forcefully present the fact that it not only shows the goods, but shows how they may be used. It attractively presents their advantages to prospective customers.

Improved methods of coloring the photographs without overdoing it and without taking away the photographic effect, combined with recent advances in three- and four-color half-tone process work, have made photography available not only for black and white, but for cover designing, for catalogue work, for back covers of the magazines, and for hangers.

It is our theory that when a photographer makes as good a *picture* as a painter, his product is, barring the possibilities of economical reproduction, worth as much as the painter's. And so our prizes have been most liberal. We hope in these contests to not merely obtain good live material for our own use, but to help interest the photographer in the illustrative side of his work. But if he is to make a success of his work, it is obvious that it must have something more than mere technical excellence. It must have originality, initiative. It must tell the old story in a new way, a way that will attract, convince. It's not merely photographs we are offering prizes for; it's *your ideas as interpreted by your camera.*

Photographic advertising is interesting work, and likely to be highly profitable. Begin now thinking it over, and before October 1 tell us, *through your camera,* how you would sell Kodaks or Brownies or increase the general interest in the Kodak habit.

### TERMS.

1. Each picture is to contain a figure or figures and is to be suitable for use as an illustration in advertising the Kodak or the Kodak system of amateur photography.

2. Each print in Class "A" must be from a negative 5 x 7 or larger. Each print in Class "B" must be from a negative 4 x 5 or 3¼ x 5½ or larger.

3. *Prints only* are to be sent for competition—not negatives.

4. Prints must be mounted, but not framed.

(Mounts should show about one inch margin.)

5. No competitor will be awarded more than one prize. (This does not prevent a competitor from entering as many pictures as he may desire.)

6. Due and reasonable care will be taken of all non-winning prints and, barring loss or accident, they will be returned to their owners at our expense, but we assume no responsibility of loss or damage.

7. The negatives from which all prize-winning prints are made to become the property of the Eastman Kodak Co., and are to be received by it in good order before payment of prize money is made.

8. Contestants who are awarded prizes must also furnish to us the written consent of the subject (in the case of a minor, the written conset of a parent or guardian) to the use of the picture in such manner as we may see fit in our advertising.

9. All entries should be addressed to

EASTMAN KODAK CO.,
Advertising Department, Rochester, N. Y.

10. In sending pictures, mark the *package* plainly, "Kodak Advertising Contest," and in the lower left-hand corner write your own name and address. Then write us a letter as follows:

*I am sending you today by (Express) (Mail) charges, prepaid prints. Please enter in your Kodak Advertising Competition. Class.....*

*Yours truly,*

*Name,* .....

*Address,* .....

11. The name and address of the competitor must be legibly written on a paper and enclosed in a sealed envelope in the same package in which the prints are forwarded. There is to be no writing on prints or mounts.

12. We will promptly acknowledge the receipt of pictures, and, when awards are made, will send each competitor a list of prize winners.

13. Only recognized professional photographers conducting a studio will be allowed to compete in Class "A." Class "B" is open to all photographers not in above classification.

14. This contest will close October 1, 1909.

## The Prizes.

### Class A.—Professional Photographers Only.

Negatives 5 x 7 or larger.

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| First prize | $500 |
| Second prize | 400 |
| Third prize | 250 |
| Fourth prize | 150 |
| Fifth prize | 100 |
| Total | $1400 |

### Class B.—Amateurs Only.

Negatives 4 x 5 or 3¼ x 5½ or larger.

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| First prize | $300 |
| Second prize | 150 |
| Third prize | 75 |
| Fourth prize | 50 |
| Fifth prize | 25 |
| Total | $600 |

## Suggestions.

The jury will be instructed to award the prizes to those contestants whose pictures, all things considered, are best adapted to use in Kodak (or Brownie Camera) advertising.

As reproductions of the pictures will often be in small sizes too much detail should not be introduced.

Pictures for reproduction should be snappy—vigorous, for they lose much by the half-tone process.

Where apparatus is introduced, it must be up to date. If you haven't the goods, you can borrow.

There may be possibilities in introducing the Kodak Film Tank idea.

It is highly probable that we shall want to secure some negatives aside from the prize winners. In such cases special arrangements will be made.

## The Judges.

The jury of award will consist of photographers and of advertising men who are fully competent to pass upon the work submitted. Full attention will be paid, therefore, to the artistic and technical merit of the work as well as to its strength from an advertising standpoint. Announcement of the names of the judges will be made later.

Eastman Kodak Co.,
Rochester, N. Y.

*Ink for Writing on Negatives.* If the following ink is used to write on the film of a negative, and the negative is then immersed in an ordinary fixing solution, washed, and dried, the written letters will be reduced to clear glass, and will print black.

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| Potassium iodide | 100 grains |
| Water | 1 ounce |
| Iodine | 10 grains |
| Gum arabic | 15 grains |

## PROFESSIONAL PHOTOGRAPHERS' SOCIETY OF NEW YORK—BUFFALO SECTION.

On the afternoon of January 25, a reception to the ladies was held by Buffalo Section, No. 6, at the studio of Howard D. Beach. Mr. A. F. Bradley, President, with Mr. H. A. Bliss, Vice-President of the New York State Society, also Chairman of the local Section and Mr. J. E. Mock, Chairman of the Rochester Section No. 2, received. About 100 were present. Entertainment was provided, consisting of music, solos by Miss Irene Pellette and Mr. W. B. Todd, and reading by Mr. Charles Rohlfs, one poem having been written by his wife, Anna Katharine Green. Refreshments were served and more music indulged in. In the evening a meeting of Buffalo Section was held at the studio of Harry A. Bliss, beginning at 8 o'clock.

Thirty-five members responded to roll-call, besides whom there were about twenty visitors present. Two applications were received for membership, and communications read from the following: Ryland W. Phillips, President Professional Photographers' Society, Pa., Pirie MacDonald, Dudley Hoyt, E. B. Core, George M. Edmundson, A. N. Camp, and Fred E. Slater.

President Bradley paid his annual official visit and spoke very entertainingly on events that have transpired and of many things to be looked forward to as the outcome of this Society.

Mr. Mock gave a good wholesome talk on matters pertaining to the Society and on photography and photographers generally. Mr. Mock said that photographers are artists and should be a great deal better paid for their work; they should be paid for their skill. Mr. Harscher followed with a tribute to photographers who aim high, believing in themselves and in their art, always pressing onward and ever ready to lend a helping hand to those, who, if they are worthy, seek to progress. Mr. Irving Saunders, of Rochester, acquiesced in a few words in the sentiment of the preceding speakers.

The list of exhibitors is as follows:

New York exhibitors—President A. F. Bradley, A. F. Bradley, Jr., Pirie MacDonald, Dudley Hoyt, E. B. Core, Fred W. Tyler, Jessie Tarbox Beals. Buffalo exhibitors—Howard D. Beach, Frank H. Beamer, R. D. Bingham, Harry A. Bliss, L. F. Ende, C. F. Hague, Lockport; Hubert Bros., George Kramer, W. C. McCoy, J. George Nussbaumer, Charles L. Peck, Fred Pohle, Oscar W. Simons, F. James Sipprell, Frank H. Bliss, Edward W. Seifert, W. B. Todd, Thomas Smith, and M. H. Zahner, Niagara Falls. Philadelphia exhibitors—Elias Goldensky, Ryland Phillips, William Ellis, J. M. Elliott, F. T. Dooner. St. Louis exhibitor—Julius Strauss. Cleveland exhibitor — George M. Edmundson. Rochester exhibitors — J. E. Mock, Irving Saunders, Mr. Furlong, Mr. Calhoun, Mr. Hale, Smith Currey, Mr. Vott. Jamestown exhibitors—A. N. Camp, C. A. Craven.

Meeting was adjourned, refreshments served, and a jolly good time had by all.

HOWARD D. BEACH,
Secretary-Treasurer.

*Schlippe's Salt Intensifier.* After bleaching with mercury in the ordinary way and well washing, the plate is darkened in

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| Water | 1 ounce |
| Schlippe's salt | 15 grains |
| Liquor ammonia | 5 drops |

## CONVENTION NEWS.

*Indiana Association of Photographers.* The executive board of the Indiana Association of Photographers, met at Indianapolis and planned its next convention.

The convention will be held at The Daguerre Memorial Institute, Winona Lake, Indiana, from July 5 to 9, 1909.

We wish to announce that this convention will be different from any previous convention. A very interesting and instructive program has been planned, and with the services of W. S. Lively, President of the Southern School of Photography, of McMinnville, Tenn., we feel assured of a very successful series of class work. No Indiana photographer can afford to miss this year's convention. Remember Indiana's convention this year is out of the ordinary; the unusual.

E. K. SHALLEY,
Secretary.

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*Photographers' Association of Wisconsin.* The executive committee of the Association held its regular meeting, for the arrangement of the Appleton Convention of 1909.

All the officers were present.

The Odd Fellows Hall of this City, (Appleton, Wis.) was selected by the committee for the Convention Hall which will afford us plenty of space for the manufactures and demonstrators use. The convention dates were fixed for July 6, 7, 8 and 9.

These dates bring our meeting two weeks before the National Convention, and will not conflict with any other.

The professional photographer and their employees are urged to become members of the Association which is required by the Constitution and By-laws, and to observe all laws and rules governing the Association.

The Constitution and By-laws will be printed in our regular annual program.

Plenty of demonstrations and good lectures will be provided for your benefit; something a little different this year, something you cannot afford to miss.

We want you to make a strong effort to be here the first day, for the reason that the committee have arranged to give you a banquet Tuesday evening, at one of the hotels. We want you to come prepared to say a few words, if called upon by the toastmaster. We hope to make this feature a grand success, and if you will all help we are sure of it succeeding.

ED. HARWOOD,
Secretary.

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*Ohio-Michigan Photographers' Association.* The Sixth Annual Convention of the the Ohio-Michigan Photographers' Association will be held in Memorial Hall, Toledo, Ohio, March 23, 24, 25, 1909. A very practical program is being arranged. We desire at this time to call your attention to the following features:

Medals will be given as prizes, and cities and towns will be divided into three classes as follows:

Class A. All cities of 20,000 or over.

Class B. All cities from 10,000 to 20,000.

Class C. All towns up to 5000.

There will be three prizes in each class: a Gold, Silver, and Bronze Medal. Also a *Grand Prize* open to all members of the Association. There will also be a *Grand Portrait Prize* open to all. A $50 cash prize will be given for the best new and original invention or idea presented, and demonstrated at the Convention; an entry for competition must be made with the Secretary of the Association.

There will be demonstrations by such men as W. S. Lively, E. E. Doty, and others, with electric-light, flash-light and day-light operating. We have secured one of the best operating rooms in the city, where for two afternoons during the Convention, thorough and practical instructions by W. S. Lively and E. E. Doty will be given. These men are rightfully considered in the front ranks of the profession, and this feature alone will be worth the cost and trouble of attending the Convention.

A professional *retoucher* has been secured who will be at a desk throughout the meeting, where at any time any member can secure a practical and thorough demonstration and instruction in any special or difficult part of this work. Members are requested if possible to bring negatives of their own, thereby being able to see just what can be accomplished in their own work.

Mr. W. R. Graber, of Chicago, who is now associated with Walling & Co., has been secured to give a short talk to the members on *business and business getting* (without the frills). Mr. Graber is a man with a world of experience, and a man who knows how and is willing to tell others. We feel we cannot say too much in his praise.

The officers feel that they have a great treat, as well as a surprise, in store for its members in the short talk which will be given by one of the most successful and thorough *reception-room workers* in this country.

Mr. G. H. Croughton, who has been in Europe for several months past, will give us a very able and instructive talk.

WILL A. TRIBLETT,
Secretary.

## CONVENTION DATES.

*Ohio-Michigan.* Toledo, Ohio, March 23–25. Secretary, Will A. Triplett, Bluffton, Ohio.

*New York.* New York City, April 7, 8, 9. Secretary, L. Minor Sherow, Ossining, N. Y.

*Pennsylvania.* Philadelphia, Pa., May 4, 5, 6. Secretary, E. E. Seavy, New Castle, Pa.

*Illinois.* Springfield, Ill., May 4–7. Secretary, H. W. Harper, Joliet, Ill.

*Iowa.* Waterloo, Iowa, May 11–14. Secretary, H. E. Voiland, Albia, Ia.

*Missouri.* Columbia, Mo., June 15–17. Secretary, J. O. Coffin, Mo.

*Indiana.* Winona Lake, Ind., July 5–9. Secretary, E. K. Shalley, Berne, Ind.

*Wisconsin.* Appleton, Wis., July 6–9. Secretary, E. H. Harwood, Appleton, Wis.

*P. A. of America.* Rochester, N. Y., July 19–24. Secretary, G. W. Harris, 1311 F. St., Washington, D. C.

*New England.* Boston, Mass., August 3, 4, 5. Secretary, Geo. H. Hastings, Haverhill, Mass.

*Nebraska.* Lincoln, Neb., October 12–15. Secretary, A. F. Anderson, Kearney, Neb.

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*Removing Silver Stains.* According to the *Bulletin of Pharmacy*, silver stains may be removed from the hands by covering the stained parts with tincture of iodine. The hands are then dabbed freely with dilute ammonia and washed in plain water without soap. We have always found ferricyanide and hypo as good as anything for this particular purpose.

# TRADE NOTES.

*Fireside Photography*, the latest in the series of photographic publications issued by the Bausch & Lomb Optical Co., has just been received, and it is of unusual interest. The book contains 32 pages, 6 x 9, and carries 14 illustrations reproduced in dual tone sepia. For several of the studies floor plans are given, in order to assist others in obtaining like results in their own homes. Aside from the pleasing execution of the book and the attractive cover, *Fireside Photography* is of value because of the lighting methods described, the brief explanation of the advantages to be gained by the use of an anastigmat, and the concise description of the various objectives listed for such work. We can recommend this publication to our professional and amateur readers. It will be sent gratis upon request by the Bausch & Lomb Optical Co., of Rochester, N. Y., or it may be obtained at your dealer's.

THE Bausch & Lomb Co. also send a large folder describing at length their Bausch & Lomb-Zeiss Tessar Series II*b*. On the cover is reproduced a segment of a crowd of baseball "fans," a remarkable example of wholesale portraiture. The hundreds of faces are all perfectly clear, each with its own expression, and a pleased one at that. Evidently the exposure was made as the home team had made a hit. Ask for a copy when you are writing for *Fireside Photography*.

DID you ever stop to consider the effect good stationary produces on your customers. Speaking for ourselves, we invariably pick out of our morning pile of mail the envelopes of good color and texture and tastefully selected type matter; these secure the first attention. Just why, we cannot tell, possibly on the same principle that your wife can pick a fifty-dollar hat out of a group of twenty-five dollar hats without seeing the prices. It pays the photographer to use the best grades of studio stationery; it conveys a good impression and helps to predispose your prospective or present customer toward your work. The Mittineague Paper Co., of Mittineague, Mass., are world famous for their distinctive papers. You cannot get a better paper, and it pays to get the best. Ask your printer to show you their line of samples, or write to the Mittineague Co. direct. Their mounting and cover papers are also unexcelled and are a big factor in getting better prices; they improve the appearance of any portrait, and come in every weight, shade, and finish. Sample books will be sent on request.

Now that tank development has come to stay, the question "What developers" becomes an interesting one. Some developers are more adapted to heavy dilution than others, and as dilution means longer development, a non-staining developer is a necessity. A good non-staining developer is "Tolidol." On a trial we have soaked a plate in this developer for twelve hours without any traces of stain or fog; the negative obtained was clear and crisp. This, of course, is an extreme case; thirty minutes in an Eastman tank with the Tolidol formulæ gave beautifully graded, warm brown negatives; good printers. Tolidol is economical, the proportion being 4 ounces to 60 ounces of water, and it can be used more than once, and it keeps well in bulk. Tolidol and the tank make the best kind of negatives.

THE ANSCO Co. have just issued two booklets that describe very fully the alpha and omega, the negative and positive, of photography, how and on what to make the negative and the print; they are full of information and are free. Binghamton, N. Y. is the address.

CAREFUL investigation has shown that development is an exact chemical process responding to mathematical rules. Tank development is replacing the tray and doing away with the necessity of the dark room. It is a human weakness to forget—have a lapse of memory—and if this should occur after filling a tank with developer something is liable to happen to the plates. Fortunately there is an antidote for every poison, and the absent-minded photographer is well provided for by the Thayer Interval Timer, which will remind him, by its warning note, that the time of development is up; that his plates are washed sufficiently or that it is time to set about keeping an appointment previously made. The Timer is a clock-like instrument that can be set to give a warning at any interval from one minute to five hours. A necessity in the workroom and a money saver anywhere, costing only $3.50 prepaid. Edwards Manufacturing Co., Westfield, Mass.

THAT frequent inquiry, how to retain the beautiful surface of the wet print, seems to have been solved by Mr. J. E. Mock, of Rochester, whose convention pictures secure prizes where they are offered and admiration everywhere. For many years Mr. Mock has used a varnish for development papers that enhances the beauty of the print considerably. The many requests for the formulæ make it desirable that the varnish be put on the market. It can be had from your dealer at $1.00 the bottle, or direct by mail for $1.15 from J. E. Mock, Rochester, N. Y.

Two unusual lens opportunities are offered in our "For Sale" columns, an anastigmat *f* 6.3 for post card work, and an 8 x 10 portrait lens. We have examined them both, and they are bargains and as represented.

# WILSON'S PHOTOGRAPHIC MAGAZINE

A MONTHLY MAGAZINE FOR PRACTICAL PHOTOGRAPHERS

Founded in 1864 by EDWARD L. WILSON
L. W. WILSON, Publisher and Proprietor
T. DIXON TENNANT, Editor

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## EDITOR'S TABLE.

MR. ADDISON A. KNOX, well known to many photographers in all sections of this country, died at his home in New York City, on January 20, 1909. Mr. Knox was born in New Haven, Conn., January 14, 1850. His parents moved to Washington, D. C., before the Civil War, and here he studied scenic painting in the National Theatre, and later took up photography under Mr. Brady in his famous gallery. Some years after, he was in the South, under D. H. Anderson at Richmond, Norfolk, and White Sulphur Springs. He then opened a studio in Poughkeepsie, N. Y., with Mr. Rowley, which he operated only a short time, giving it up to accept a position with Mr. Geo. Eastman as demonstrator of the then new Dry Plates. Mr. Knox was one of the first demonstrators of Dry Plates in this country. Some years later he connected himself with E. and H. T. Anthony & Co., where he remained until about 1887, when he opened a commercial studio in New York, in which he continued until his death. He was married September 9, 1885, and leaves a widow and one son, Roger M., who will conduct the business.

Mr. Knox was a man of keen intellect and genial disposition, a great reader, and an ardent lover of the Scotch poet, Robert Burns. He was for many years a church singer and a member of various musical societies. Those who knew him best loved him most. Masonic services were held over his remains at the Merritt Funeral Parlors and his body was intered in the family plot at Metuchen, N. J.

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MR. C. R. SAVAGE, one of the pioneer landscape photographers of this country, died at his home in Utah some few days ago. Mr. Savage began his photographic career in the early fifties in New York. In 1856 be crossed the plains in an ox cart and settled in Utah. The wonderful scenery of the Rocky Mountains attracted his attention and he was one of the first to make and offer for sale photographs showing the beauty and majesty of mountain scenery. Mr. Savage was also one of the first photographers officially attached to a railroad, having been appointed official photographer to the Union Pacific in the early sixties.

*The Photo-Miniature*, No. 94, just issued, is devoted to the photographic post card, and treats the subject in the usual thorough and interesting manner. Its possibilities for pleasure and profit are described, as are the different processes, by which they can be produced. In this era of post card popularity it is almost a necessity. Price 25 cents. Tennant & Ward, New York, Publishers.

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THE latest issue of *Prism*, the Bausch & Lomb Company's monthly, is devoted to "Child Pictures," and is by Mr. C. H. Claudy, who has done much good work along this line. It contains many useful pointers, and should be read by all who photograph children. It is free for the asking.

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ONE of the most attractive booklets we have seen in some time—its subject is "With a Kodak in the Land of the Navajo"—is written and illustrated by Frederick I. Monsen, the well-known traveller, photographer, and lecturer. Mr. Monsen has lived for twenty years among the Navajo and Hopi Indians, and in that time has made a wonderful collection of photographic records of these fast disappearing tribes. He tells his story simply in this dainty little volume, bound in a cover designed and colored like a Navajo blanket. The Eastman Kodak Co. will be glad to mail copies on request.

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THE Sidney Allan series of mottoes, maxims, and wise sayings of prominent photographers. This is a set of twelve decorative mottoes now so popular, for hanging in the reception room, work room, and den. They are the wit and wisdom of such men as Core, Garo, Goldensky, MacDonald, Parkenson, Pierce, Stein, and Strauss. What could be better to keep before the eye of your receptionist, your printer, or yourself for that matter, than H. H. Pierce's brief but crisp *Don't make excuses; make good.* They are printed in Japan vellum, 4 x 7, and are quite ornamental as well as incentives to better work. Price, $1.00 per set of 12. Published by Sidney Allan, Camera Building, New York.

By E. B. Core, New York

# WILSON'S PHOTOGRAPHIC MAGAZINE

FOUNDED IN 1864 BY EDWARD L. WILSON

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## THE NEW COPYRIGHT LAW.

FOR four years the Photographers' Copyright League of America has been endeavoring to secure to the American photographer the same measure of protection that is granted to every other citizen under the law. The struggle has been in vain.

The new copyright bill was passed by the House and the Senate on March 3, and goes into effect July 1, 1909. In many respects the new bill is a great improvement over the previous bill, and had the bill been passed as it left the conference of the two houses it would have been entirely satisfactory to the photographer. At the last moment an amendment to the bill was moved by a congressman from New York and accepted by Congress in face of a threat to wreck the entire bill—the labor of four years—unless this amendment was accepted.

This amendment fixes the amount that can be sued for in a civil suit for infringement by a newspaper, at a minimum $50.00 to a maximum $200.00, in plain words this means that the photographer has no protection for his property rights in his own work if the newspapers decide they want to use it. The cost of an action to recover damages for infringement would greatly exceed the amount that could be collected under the law.

This amendment, gained by stealth and by the same underhand methods that have marked the attitude of the newspaper interests throughout the framing and passing of the bill, creates a privileged class. From the beginning the Copyright League has had to fight the powerful newspaper interests who were determined to have the free use of the photographers' work, and they have won out for the penalty for infringement is really no penalty at all.

The photographer is evidently of so small account in the eyes of our lawmakers that when it came to a question of protection for his property or leaving him at the mercy of the newspaper interests, he was left unprotected and the Copyright law made of little or no effect as far as he was concerned. While the composer has ample protection against the "canned" music manufacturers, the photographer must sit still and see his work reproduced by the newspapers because the law does not recognize his work as being of any value, not over $200 in any event.

If the Photographers' Copyright League had had behind it a large and powerful organization such as the

National Association might be, were it in close touch with every State association, then the Copyright bill might have gone through in such a form as to protect the photographer with the same measure of protection that is granted to every other holder of a copyright.

The improved features of the new bill are that the notice of copyright needs fewer words, no date is required, a small circle with a "c" in it and the name of the owner of the copyright is all that is required. The formalities incidental to the taking out of a copyright are very much simplified and a lot of "red tape" has been done away with. Under the new law a print can be marked "copyright" the moment it is made, and the photographer has thirty days in which to pay the fees and send copies required to complete his title. Another good feature is that in suing for an infringement damages are assessed not on the copies "in possession," but on the fact that the copyright has been infringed, which can be proved by a single copy.

In its minor details the bill is eminently satisfactory, but this will not by any means reconcile the American photographer to the fact that photographers in every other civilized country in the world are infinitely better protected by their copyright laws than are photographers in this land of a boasted high civilization.

Too much praise cannot be given to the officers of the Copyright League for their great four years' fight for a proper recognition of the photographers' rights. It was not their fault that in the excitement of a closing session and on the eve of an inauguration a powerful and unscrupulous combination robbed the photographer of his rights. To B. J. Falk, Pirie MacDonald, and Col. Marceau are due the thanks of every photographer for their labors on behalf of better copyright.

## A NOTE ON WHITE BACKGROUNDS.

BY RICHARD PENLAKE.

THE first-class professional photographers in England have for some considerable time been in the habit of using perfectly white backgrounds for certain sitters, and the idea is now being taken up by the middle class professional. Workers of the Furley Lewis, Crooke, and Hoppe type have and are still doing good work in raising the status of photography and educating the public in the matter of the use of backgrounds—or more correctly speaking, no backgrounds—in portraiture.

The three workers named perhaps use black backgrounds rather than white ones, but knowing their methods of working so well, I am positive that either of them would use a white one if the subject warranted it.

White backgrounds are easy to use when one knows the secret, but many workers when first using them generally meet with nothing but ghastly failures. I met with numberless failures until after many experiments I hit upon the true secret of obtaining good and effective results, or I should say, what I believe to be the secret, anyway, I can now get results which please me and my customers.

White backgrounds have the advantage of being cheap simply because they cost nothing. Any white table cloth or sheet may be used provided there are

no creases or patterns thereon which will "come out" in the negative and so spoil the picture. But success depends not so much upon the whiteness and flatness of the sheet or table cloth as upon the proper lighting of the sitter's face, particularly if in profile, and it may be here stated that profiles make far better and more artistic pictures than three-quarter or full faces; the two latter in my opinion are not at all suitable poses to photograph before a white background. We may get results of some kind, it is true, but whatever they be and however technically perfect, they will not be so pleasing as a profile. There are of course profiles and profiles, and some I need hardly say make more pleasing pictures than others. Then, again, profiles are always more of pictures or studies rather then portraits or likenesses.

Those who have been venturesome enough to take a profile against a sheet have probably found that the white face merges into the white background, that there is no line of demarcation, and it is very difficult to see where the face ends and the background begins. The reason being that the face—more particularly the outline of the profile—is not in a deep enough shadow, or if it is in shadow it appears too dark. If the best results are wanted the face itself must not be in deep shadow, it must be kept a fairly light tone, with the darkness increasing, if at all, as one nears the outline of the profile, in order to make it stand out against the white at the back of the sitter. To get this effect we come to the secret of success, namely, a black reflector, which is used as follows: Place the sitter back to the source of light, and at a fair distance from the background, the latter position is advisable because when the sitter is focussed, the background, if a suitably large stop be used, will appear out of focus, and thus prevent any pattern or crease showing on the negative. Some black, red, or other non-actinic material is then placed as near to the sitter's profile as possible, without showing in the picture. To the naked eye this black material—say a focussing cloth—will not appear to have much effect, but when seen by the lens and plate it has. The blackness is reflected on to the profile and picks it out, as it were, from the surrounding desert of whiteness and one gets on the print a clearly cut outline of shadow.

Exposure should be full so as to secure all detail and the negative should be developed for softness. Backed plates are advisable, as halation is likely to appear if there is much contrast between the shadow face and brilliant background. Use as large a stop as possible, so as to quicken the exposure, as the slightest movement will spoil the clear-cut outline of the profile. Thus it will be seen that the production of this kind of portraiture is not difficult. The secret lies in the use of the black material as a reflector, the latter in a suitable position will enable one to easily produce profile or shadow portraits of a highly artistic character if the profile is a suitable one of a classic form, much indeed depends upon it. It is upon the curve and length of the chin that more than half of the beauty of a woman depends. The neck too is important, and draped busts in which the bare neck is shown, are to be preferred in picture making to high and fancy collars.

# HOME PORTRAITURE.

BY C. W. HEARN.

HOME portraiture is all the more interesting and fascinating on account of the rather tough propositions that are always coming up during the process of making it. As an offset to the difficulty at times experienced, is the development of yourself as a resourceful worker, which is most valuable, and also the great variety of work that you produce, making a collection of pictures all the more interesting to the public, to whose taste we cater. It is, as we all know, very hard in the practice of our profession, under ordinary circumstances, to prevent our work from being all more or less of the same character. This fails to create the enthusiasm over our pictures by the possible purchaser who visits our studios, which is very necessary to encourage their sitting frequently, and otherwise extend our business. Whether we make much of a pursuit of the work or not as a business proposition in itself, it surely is advantageous for our indirect success that all of us at times go into these things like home portraiture, as a tradegetter.

As a means of livelihood for the professional, considered independently of a regular studio with complete appointments, I should with much earnestness advise considerable caution. Our ranks are today provided with a number of amateur, semiprofessional, and strictly professional home portraitists, among whom, in the professional class, Messrs. Histed, Pierce, Koshiba, and Henderson are among the more prominent. These latter gentlemen do work of a very high order, and their success has attracted a great deal of attention, and yet only one of the three mentioned, Mr. Henderson, is absolutely without studio appointments within his control.

*The Business Aspect of Home Portraiture.*

At first glance it may appear that making a specialty of home portraits is a good money-making way of doing business, as the rent and other expenses of running a studio are done away with, and one could have his office at his residence; but the amount of the work done in the locality in this way is rather limited, besides requiring peculiar gifts in the ability to get a constant flow of customers.

When business is done with the magnitude or extent that Mr. Pierce accomplishes, north, south, east, and west, over large areas of the country, with the necessary extensive measures to accomplish its attainment, and the final execution and delivery of his work, with railroad and hotel expenses added, it eats into a great deal of money, and even the large price he receives is no more than the excellence of his work and the expenses attached to it entitle him to.

The rumors of high prices in connection with this work are, I think, the cause of so much attention being given it, whereas the pictorial effects so easily possible when making the work should attract all photographers to it.

The people who can afford to pay high prices for these pictures naturally expect to receive value for their money. It is evident, therefore, that he who would do this work should have a superior knowledge of pictorial effect

and ability to produce it. Added to this is the ability to accomplish all kinds of faking to overcome difficulties and assist in the carrying out of good ideas. This faking of the negative and of the print also during printing is ever present with you. To succeed, it is of vital importance. The mere process of development is not a mechanical one, but requires slow, careful work, to obtain the very best possible out of an exposure which, if it had been made in the studio, would have been discarded.

*The Wisdom of Reasonable Prices.*

Then, again, the high prices themselves, often obtained, are often an injury to the future of your business, if these same prices impress people as unreasonable. It is also a mistake to think that even the very wealthy don't object mentally, even if they do pay the bill. This fact has within a few months come to my attention in connection with an artist in a distant city where I reside. He informed me that he knew positively that his trade had been hurt in a certain section or circle because a patron, who was well able to pay what she ordered, paid him a large amount of money for a large order which she gave him, knowing full well what the bill was to be. She told her friends what the price was she paid, without informing them particularly how much work she had. It spread rapidly, and her friends, less wealthy than this patron, went elsewhere for their work. He had expected great results from this circle of friends, but never had one of them.

In passing, it may be well for us not to pat ourselves on the back (or hire someone else to do it if we can't reach it ourselves) when we receive a large remuneration for a limited number of pictures. It is well to bear in mind that if the product is such that we wish and hope for other work to come from it, it would be far better in the end if we arranged our prices, to some extent at least, so as to render possible the patronage of a number of her friends. Arrange these things, therefore, to bring some returns for this special fine thing you've made, and not let it go to waste, with only the one person as the result of it.

The ability of the artist and the excellence of the work made should receive proper returns, without giving the public an idea that the prices are extortionate.

*Practical Matters in Home Portrait Work.*

In the making of home portraits, the general illumination of a room in a house is far less than under our skylights, and if the surroundings be also dark, then there are no reflections, and the results will likely be black and white; hence the need of a small reflector, which may be nothing but a towel or newspaper held up by an assistant or some member of the family, on the shaded side of the customer, and a little to the front. In doing this, watch that you do not reflect too much light to spoil the shadow eye, or flatten out the shadow ear, making a noticeably dark and inky place from the nose nearly to the ear, and there very light.

Placing towels over the top of a two- or three-flap screen, to be found in most every house, answers the purpose very nicely, as at three or five or even more feet away it reflects back sufficient light to illuminate without destroying the character of the sitter's expression. Blue tissue paper laid over the screen instead of white towels or cloths is also very good, and perhaps better.

Get a lens that works quickly, cuts well, and doesn't require too great a distance, working reasonably near

without distortion. A quick-acting, good lens is of great advantage.

### *Hints as to Lighting.*

A general rule for lighting the subject is to place her as far away from the light as the width of the window, and a little back from the window sash or frame work. By this means the full, direct light from the window, continued in a straight line as it travels, will pass practically in front of the face. The subject, however, will receive a mellow and powerful light, and by placing the chair a few inches this way or that, with suggestion to the subject of changing her position so she will face the window more, or vice versa, very beautiful effects of lighting are easily obtained in the face (the more especially) and on the figure.

A narrow window and bright light will most likely produce strong contrasts, but this can be easily modified by changing location of the chair. Work to do all you can with the light itself, and make it a point to only use a reflector when absolutely necessary.

If in lighting you can get a little of the natural light on the further cheek, and still find room for your camera, the results are better. If you do this, and this light on the shadow cheek appears as very hard and sharp, then without changing relative position of chair with the window, place the chair a few inches or a foot farther away, and you'll find that the light in the cheek will still be there, but, not being so strongly marked, it will have softened or spread over the rest of that side, thus reducing the contrast, rendering almost unnecessary a reflector.

In bust portraits try and have the bulk of the light come from the upper part of the sash, screening the lower part of it with blue tissue, being careful in so doing that you don't prevent having a little snap of high lights on the forehead and nose and a little less on the chin. Avoid extremes, however. A little doesn't mean so much that it merges all of the values of the face into one large white spot. Have just enough to prevent flatness, and so the head will be admired on account of the character or feeling that it has substance, and the face well delineated because its various facts are well indicated.

Fine pictures are made by experts where all sorts of combinations are made as to location, strength or weakness of the light, combined with the successful carrying out of all sorts of seemingly impossible effects; but you grow to this. Be satisfied in the first place to succeed in the preliminary stage, then your ability will be such as to successfully tackle and overcome more difficult things.

I have left for the last what is of vital importance, and that is the plate you use. By all means, for serious work of this kind, use ortho- or isochromatic plates. All good non-chromatic plates will make house portraits, but it seems to me that with house portraiture a color plate only should be the one generally used. Why? Because all the things in the room that take black, strong shadows in the face, etc., with an ordinary plate all take the same quality of black, or very nearly so, and the white objects are now unduly white amidst the gloom.

The isochromatic plate, used without a screen or filter, will show great differences between the darks in the negative, and will hold down too pronounced whites, or at least bring them nearer together as they appeared at the time. Don't try to make a reputation in home portraits with ordinary plates. Give it up and start straight.

## EXPOSURES BY MAGNESIUM RIBBON.

THERE is nothing really new in this article, and yet all of it may be new to some of our readers, and some of the figures may be convenient for reference to those well acquainted with the subject.

The strongly actinic light given out by burning magnesium wire seems to have been utilized first for flash-light photography. The next step was the flattening of the wire into tape or ribbon, and later its grinding up into powder to be blown through alcohol flame, and lastly, its compounding with other chemicals into an explosive mixture.

The explosive flash-light powder gives an almost instantaneous exposure, and while it has its convenience, it tends to excessive contrasts.

The powdered magnesium blown through an alcohol flame gives a slower flash, and the resulting negatives are more like normal exposures. A mustardspoonful of the powder weighs about six grains and with a fast plate at F/8 will give a full exposure at ten feet.

The objection to both the flash powder and the magnesium powder is that the room is filled with smoke, and the plain magnesium powder showers down unburned particles. It is surprising to note how little smoke is produced by the burning of the ribbon as compared with the burning of an equal amount of magnesium powder or flash composition.

For many purposes the magnesium ribbon is preferable to both the above. An ounce of it contains about 120 feet and is worth about seventy-five cents. Three inches of it weigh a grain.

Comparing this with the magnesium powder, one sees that the burning of two feet of it so as to light an object which is ten feet from the camera will give, with a fast plate and full opening of lens, a full exposure. It is well to set it off in six-inch strips, burning perhaps three-fourths of it on one side of the object and one-fourth on the other side, to give a soft lighting. The tape may be held with a pair of pliers and may be lighted with a match, or, better, with a small alcohol lamp flame.

Where only an inch or two of the ribbon is to be burned, the operator's face may be turned away at the moment that he sees it catching fire. Where more of the ribbon is being burned and it is desired to watch its progress, one or two thicknesses of ruby glass may be held in front of the eye, or a combination of ruby and green glass will very nearly obliterate the light. Theoretically no light should pass through such a combination, the two colors being complementary and absorbing all light.

For copying purposes, with a fast plate and full lens opening, where the object is within two feet of the camera, an inch of ribbon is sufficient.

Comparing the light for photographic purposes with other forms of light, an inch of magnesium ribbon seems to be about equivalent to a six-foot gas burner, or to two three-quarter-inch wick kerosene lamps burning for four minutes, all, of course, equally distant from the object.

An experiment which the writer has often thought of trying, but which he feels certain would be successful, would be to hang a loop of about two feet of magnesium ribbon to the ends of supporting iron wire, with a spread of about twelve inches—the intent being to give the equivalent of a larger light surface—the ends of the ribbon to be held by clips on the whole supported over a

metal dish to catch any burning fragments. The middle of the loop of ribbon to be *nearly* cut through with a long diagonal cut, the tip of the point so produced causing the ribbon to take fire more readily and at the same time the ash to break at the point of cutting; otherwise the ash will hold together until the whole ribbon is nearly burned up, producing a relatively long exposure. By placing a candle or alcohol lamp immediately where the ribbon will swing into position, and then holding the ribbon out of line by some slight obstruction, or a thread, which can be pulled aside at the proper moment, one can take his own picture if desired. If the tape is not cut in the middle, as advised above, it will take half a minute for it to burn. If it is cut, as suggested, it will take about ten seconds, as both ends will then ignite. The gas jets in the room had better be turned on full, so that the eyes of the sitter may be accustomed to a fairly strong light, the only precaution being that neither the jets themselves nor any reflection from them should shine into the lens.

There is still another use which can be made of the ribbon and that is the printing of gaslight papers. With an average negative from one-sixteenth to one-fourth of an inch of ribbon may be used at a distance of about eight inches. For this purpose the ribbon should not be cut *squarely* across, but at a sharp angle to its sides (a long diagonal cut giving tapering points at both ends). One-sixteenth inch of the ribbon as cut ought to be nearly one-third of an inch long. Such a piece of ribbon held by its extreme point with a pair of pliers into an alcohol flame will burn readily; but if not so cut, the heat from the flame will travel into the pliers so rapidly it will not burn at all. The small glass alcohol lamps sold in drug stores are well suited to this sort of work.

There is a very considerable saving of time in setting off an instantaneous flash with the pliers as compared with waiting two or three minutes to do the printing, and where a very dense negative is to be dealt with, the ease with which the quantity of tape can be apportioned to the requirements of the negative is in marked contrast to the long delay required for the gaslight to do the printing.

An ounce of ribbon with a pair of pliers and an alcohol lamp will be found a very useful addition to one's photographic possessions.—C. E. MANIERRE in *Photographic Topics*.

## PHOTOGRAPHIC MOUNTANTS.

CONSIDERED in the light of the skilful work frequently involved in the preparation of a photographic print, its mounting, perhaps, seems a trivial matter. Be that as it may, the choice of a suitable adhesive for the purpose does not always receive the attention that it deserves, writes L. A. Fennell in the *Photo News*.

The great majority of photographers produce their pictures on papers sensitized with salts of silver, such as P.O.P., bromide, and gaslight papers. While it is well known that insufficient fixing, or washing, is generally the cause of fading in such prints, even a well-fixed and washed photograph will deteriorate if mounted with an unsuitable adhesive. The possibility of similar disaster being traceable to mounts themselves is inconsiderable, since mounts obtained from photographic dealers are generally free from deleterious substances.

*Why Gums should be Avoided.*

Curiously enough, many otherwise careful workers are content to use the first adhesive that comes to hand for mounting their prints. This is a mistake where permanence is desired. Broadly speaking, liquid gums and glues are to be avoided. The reason for this is obvious when one considers that gums and glues sold in liquid form frequently have a strongly acid reaction, which, in many instances, is due to the use of nitric acid in their manufacture. It is, therefore, unwise to use any commercial adhesive unless such be sold as a photographic mountant. There are excellent mountants on the market, such as Higgins', Day's White Paste, etc., which can be recommended, but many photographers prefer to make their own, and generally prepare them from starch, flour, or gelatine.

The most popular home-made mountant is either a starch or arrowroot paste, either of which serves its purpose very well, and, when fresh, is harmless to prints. Microörganisms quickly get to work in it, however, so that the paste is soon in a state of fermentation, and in this acid condition should not be used. Flour paste is affected in the same way, and the change is naturally more rapid in warm weather. To avoid the inconvenience of repeatedly making the paste, the addition of some essential oil, such as of cloves, cinnamon, etc., has been advised as a preservative. The small amount usually prescribed is effective only for a few days, but after that, perhaps, proves a source of mischief, since its aroma may disguise the smell which would otherwise warn the operator that fermentation was in progress. Aromatic oils are but mildly antiseptic, and their presence in sufficient quantity to delay decomposition for any length of time is undesirable.

Without discussing the other drugs that have been recommended for the present purpose, it may be said that none is so suitable as either benzoic or salicylic acid. They are excellent preservatives, and do not harm the prints. The same is true of formalin, but this agent has an unfortunate effect on starch pastes, causing them, sooner or later, to lose their adhesive character.

Pastes made with flour (or in which flour predominates) seem to retain their working properties longer than those made with starch alone; a very good mountant may be prepared as follows:

*The Necessary Materials.*

Either a double sauce-pan, or a jam-jar and ordinary saucepan, will be required. If the latter be used, the jar should be capable of holding about one quart. When placed in the saucepan of water, preparatory to boiling, it should always rest on a layer of flannel. This precaution minimizes the risk of heat cracking the jar. Weigh out—

| | |
|---|---|
| Wheat flour . . . . . | 4 ounces |
| Arrowroot . . . . . | 1 ounce |
| Salicylic acid . . . . . | 1 dram |

and transfer them to a basin. Measure 20 ounces of water, and add a little of this to the solids. Next rub them into a smooth cream, avoiding the formation of lumps. Then add the remaining water, stir well, and pour the mixture into the inner vessel of the saucepan. If the paste is to be cooked in a glass jar, the precaution suggested should be borne in mind. These preliminaries arranged, bring the whole to boiling point, and stir the mixture till it thickens, which, approximately, will be in three minutes. Continue the cooking for another five minutes, with occasional stirring, and then allow the paste to cool, when it may be stored as desired. This mountant will be found satisfactory, and, if kept in a jar with a tightly fitting

cover, will remain unchanged almost indefinitely.

Space will not permit of more than passing reference to gelatine. A solution of gelatine in water is a mountant favored by some photographers. The chief drawbacks to its use are the facts that it must be heated each time it is required, and, in addition to this inconvenience, the repeated heating spoils its properties. The time-honored mixtures of starch and gelatine are inferior to the paste just described.

Of all known photographic mountants, undoubtedly the best is that made from white dextrin. The yellow variety is very unsuitable for the purpose under discussion, and should on no account be substituted.

### *Concerning Dextrin.*

Dextrin is the name given to the substance or, rather, mixture of substances obtained as an intermediate product in the conversion of starch into dextrose, or grape sugar. There are several methods of producing dextrin commercially. On heating starch to 210° C., a yellow variety is obtained. Starch treated with very dilute mineral acids, and subsequently dried in stages at increasing temperatures, yields a white dextrin. This costs rather more than the yellow, which is sold at ten cents a pound.

To make a mountant of this substance, 10 ounces of white dextrin, by weight, and 10 fluidounces of water will be required. Place the water in the jar and follow this with the dextrin, stirring while the latter is added. The formation of lumps in this instance is of no consequence. Place the jar on its flannel in the saucepan, half fill the latter with water, and heat as in the last case. When the dextrin is entirely dissolved, remove the jar, and into it drop 15 minims of formalin (40 per cent. formaldehyde) or fifteen grains of salicylic acid, and incorporate by thorough stirring. The liquid may now be poured into a suitable vessel, preferably a screw-capped jar, and allowed to cool. In the course of a few hours the mixture will set as a solid white mass, resembling lard, and in this condition is ready for use.

Although apparently so solid, the working of this paste leaves nothing to be desired. It is an excellent adhesive, clean in use, and can be spread under the fingers with the greatest facility. Furthermore, owing to the relatively small amount of water present, very little curling of prints occurs. Like the mountant last described, it will keep in good condition for a very long time if well covered.

Should any difficulty be experienced in obtaining white dextrin, a good substitute for the last paste may be prepared from materials to be found in almost any amateur photographer's household. The process forms an interesting experiment based on the action of dilute mineral acids on starch, and results in a mountant consisting chiefly of dextrin. Considering the purpose for which the mountant is intended, hydrochloric is the most suitable acid, and arrowroot the best form of starch to use. Household starch is less satisfactory, and contains a varying quantity of alkaline impurity, which would have to be taken into account when determining the amount of acid required.

### *How to Proceed.*

Into a jar, whose capacity should not be less than a pint, put 10 ounces of water and 50 minims of pure concentrated hydrochloric acid. Next add 6 ounces of arrowroot, and stir well. Adjust the jar as previously directed, taking care that the level of the water in the saucepan is above that of the liquid in

the jar. The whole should now be heated, and the mixture stirred at short intervals until it has thickened. Arrived at this stage, the jar should be covered with a saucer, and from now onward the boiling point must be maintained continuously for one hour. Meanwhile, stir the mixture occasionally, but keep it covered during the intervals, otherwise a tough skin will form on its surface.

While the cooking is in progress it will be noticed that the arrowroot slowly loses its thick consistency, and eventually becomes capable of being readily poured. This is due to a process of hydrolysis, whereby the bulk of the arrowroot is converted into dextrin, which is held in solution by the water. Part of the dextrin is further hydrolyzed, giving rise to reducing sugar, but this is of no moment.

The hour having elapsed, remove the saucepan from the fire. The next step is to neutralize the free hydrochloric acid still remaining in the solution. To this end, 1 dram of washing soda should be finely crushed and dissolved in the mixture. It must be added by degrees, otherwise the rapid evolution of carbon dioxide may cause the contents to overflow the jar. As a result of the reaction, sodium chloride (common salt) is formed. Now thoroughly incorporate either 20 minims of formalin or 20 grains of salicylic acid, and the preparation is complete. It may now be poured into a screw-capped jar, and will set in a similar manner to the dextrin paste previously described, which it closely resembles in general characteristics.

*As a Refinement.*

Though not necesary, the addition of a little aromatic essence to the foregoing mountants is a pleasant refinement. Oil of almonds, cloves, cinnamon, or cassia are suitable, and the one selected should be mixed with the paste before the latter has set. Five minims will generally be found sufficient. Of course, provided the given proportions be maintained, greater or less quantities of the three pastes may be prepared.

The writer has given close attention to the subject of photographic mountants, and the last quoted formula is the outcome of his own experiments. The paste of white dextrin is certainly the best; in fact, is equal to anything on the market, and, naturally, costs less than a proprietary article. After devoting a considerable time to research, the writer has failed to find a simple means whereby an adhesive more suitable for the purpose under discussion can be produced. In conclusion, the reader is assured that any of the above pastes will be found eminently suitable for photographic work, and they are put forward in the hope that they may be of service to those who prefer home-made mountants.

## PHOTOGRAPHING YOUNG CHILDREN.

[We are indebted to our old friend George G. Rockwood for the following interesting account of Mrs. Jeanne Bennett's method of photographing young children, which we reprint from the Baltimore *Sun*.—Ed. W. P. M.]

Our new methods of photographing women and children have come into existence in the last few years—queer, that is, compared to those employed in the past. Looked at in any reasonable light, however, they are only a logical result of an effort to represent women and children in a style that will

give some suggestion of their grace and physical charm.

The old-time method of taking the pictures was unvarying. You went into the studio, the photographer fixed you in some set, stock, stuff, type pose, and then photographed his handiwork.

That was all there was to it. The result was not you, but a photographer's ideal of you. It was what the photographer thought you would look like when you got to Heaven.

*The Old-time Studios.*

The old-time studios were great places, and they will not soon be forgotten. There are still some of them in existence, but they are passing away like persimmons rotting on the tree. Every now and then you come across one of them—an old man fussing with a lot of antique apparatus and talking reverentially of the "bloom" of the old wet-collodion plate, and the beauty of the albumen paper that is, alas, no more.

You leave him with his dead, reverentially, your hat in your hand. The old studios will not soon be forgotten.

The atmosphere of one of them was as cheerful as that of the waiting room of an undertaker, and in corners of the studio, which you could see through an open door from the reception room, were very queer gawky-shaped things shrouded in black.

Having a picture taken was a great affair. The photographer came running from behind a screen after a decent interval of time, you remember, and you proceeded to introduce yourself. He always knew all of the prominent men, intimately and bosomly, that you chanced to mention, and he would swap yarns with you about their little peculiarities until you got embarrassed from lack of ammunition, and the conversation paused.

Then he looked you over as if measuring a body for a coffin and said in grave tones, "Bust, half-length, three-quarter, or full?" just as if he was asking you what style of casket you preferred.

You as often as not said "bust." It was provoking how friends and relatives always wanted you on a bust in a picture and would perish at the thought in real life. You said "bust," and then he said, "full, three-quarter, half, or profile?"

*The Awful Black Cloth.*

This was another harrowing matter. If you had the picture taken full, your face would look flat. If you had it taken in profile, the nose that you inherited from Aunt Sophia of Revolutionary, evolutionary, presaurian, and antediluvian times would show too prominently. So you chose half-face, to strike a compromise.

This having been settled upon and all of the passwords having been given you were taken straight into the picture chamber. The picture machine and all the other atrocities shrouded in black were uncovered, and the photographer sat you down in a high-back, small-seated narrow-minded chair. Then he whirled various wheels, pumped up and down on a lever in the side of the camera stand, and squinted through the camera at you.

Having given one final touch and pat to the black cloth which he had put over his head at the beginning of these maneuvers, and which he had now lovingly wrapped over the after part of the picture machine, he came briskly toward you, grabbed you by the back of the neck with a pair of forceps, and clamped the forceps securely to an iron rod in back of you.

You couldn't move; you did not care to move; every thought you had,

or thought you thought you had, was fixed intently, devouringly, devastatingly upon the forceps back of your head. This gave you an ingrowing, contemplative, intellectual expression on the outside much to be admired.

Then the photographer passed his hand lightly over your forehead several times to clear it of loose hairs, brushed your hair back with a commanding sweep of his hand, and turned his attention once more to the camera.

He stood at one side of the big lens, which peered over his shoulder. The camera looked like a pet animal of strange, unheard-of, heavenly design perching on his shoulder, ready to spring upon you when unleashed. He said, "Look pleasant, please," because the phrase had not been overworked in those days. The black eye of the camera got larger and larger.

"Can't you look pleasant?" he most often asked next in a despairing tone, and then he usually supplemented this by a still more woebegone, "Can't you look pleasant just for a minute?"

*Stared at the Camera.*

You made a brave effort then, and he, appreciating it, took the cap off the lens. The camera stared at you for interminable seconds and you stared at vacancy. The exchange was fair. The camera saw no more than you.

When you thought that you could stand no more and your face had assumed that hopeless expression you see in the faces of Doré's martyrs facing the lions, the photographer bottled up his camera again and came over gently and released you from the forceps.

You collapsed like a paper doll without support, and in your exhaustion you heard the old photographer rubbing his hands and saying, "Splendid! Splendid! I will send you the proof tomorrow."

The proof probably came on the next morn, but just when you could get all of the pictures that you ordered was a question that depended wholly upon the state of the atmosphere and the sky. It used to be a common remark, "Oh, I hope tomorrow is clear! I want the photographer to finish my pictures."

When the pictures did come they were on shiny albumen paper that showed every wrinkle and every harshness in what you had thought was an attractive, if not beautiful, countenance —one that your "clear spirit" illumined anyhow. You began to think that you had no clear spirit or that that had been off duty in the photograph studio and you looked upon the picture as a pretty fair guess of what you would look like after the embalmers had stretched you out.

The pictures were incased in solemn black mounts. You had never had more than one exposure made for your picture. If that wasn't good you took what was sent, thanking Heaven that it was no worse.

*New Methods are Better.*

Well, all of that is changed nowadays. Soft, beautiful, plastic methods for photographing men, women, and children have come into vogue.

The old methods were not altogether bad for men. They produced stern-set pictures, and what we most admire in men is the ability to be stern and set. Most of our ideas of the old generation of men come from these high-back, high-forehead, stiff, Sunday-go-to-meeting photographs, and probably they give us our good opinion of the generation.

For women, however, you want something easy and elastic and simple; something that will show their grace and fluency of movement, their suppleness and roundness. For children you want something that will suggest their

sparkle and variety, their winsomeness, prettiness, and simplicity.

So the present-day world has developed new methods of photographing women and children in the grace of body that the Lord has given them, and not in stiff, ungraceful, Puritanic, conventional attitudes, good only to show the grace of their souls.

When the portraits have been taken, moreover, nowadays they are printed on soft fluent printing paper that has 100 variations and whimsies of tone, instead of one hard, shiny, albumen paper, with but a single rose bloom of color that fadeth soon away.

### *A Woman Photographer.*

The most conspicuous photographer of women and children in Baltimore, and one of the few professional women photographers in the city, is Mrs. Jeanne Bennett, whose studio is on Hamilton street, just east of Charles. Perhaps it is Mrs. Bennett's picturesque methods, as well as her picturesque pictures, that have given her such a peculiar eminence among photographers and in so short a time.

She pictures fine ladies and fine ladies' children, and she does not go out of her circle. At the corner of Hamilton and Charles Streets is a little wooden frame box, in which Mrs. Bennett exposes the best of her pictures, one by one. At the top and bottom of the frame in Gothic letters are the name and address of Mrs. Bennett. You could not see either one without looking closely.

On the door of Mrs. Bennett's establishment, as you enter, is a "J. B." worked together in artistic fashion in a circle of red and black. All that Mrs. Bennett does is very "Art Noveau" and Roycroftie. She has the happy golden touch that gives distinction and individuality to her work and her methods.

The reception room of Mrs. Bennett's little place on Hamilton Street is restful, simple, and elegant. The walls are hung with good pictures. The furniture is mission. On the table are some good books and magazines. There is a comfortable couch beside the wall.

It all has a charm and dignity and sureness of touch that you rarely find even in a private home. On the floor above this is the studio—a large bare room roofed with glass, above which is the sky.

In the corner of the studio is Mrs. Bennett's parrot, a great big bird with a rasping voice. There are one or two backgrounds against the wall, but there is no litter of scenes and paraphernalia.

The camera is a decent oak wood instrument, which stands squarely on a simple oak pedestal. It is covered with a brown cloth when not in use.

### *No more Hard Posing.*

"My method is, after all, simply a systematic lack of method," said Mrs. Bennett last week. "I give each sitter individual attention and treat her as her case seems to demand.

"I do not pose sitters. I let them assume natural poses, with suggestions from myself, and then I take the photograph. I don't mean that I let people stand in front of the camera depending upon their unaided fertility of mind to form a good attitude. I let them assume postures that are most natural to them then place them so that they will look well in a picture, and then photograph them. That is all. I see that their hands and feet are not too prominent and that their pose is not awkward, and then I photograph them before they feel self-conscious.

"My great aim in taking pictures is to gain the sympathy of my sitters. I want them to feel that what is being done is a very simple thing, and that

it can be attended to very pleasantly. I try to draw them, themselves, to the surface. I do not want to photograph merely a conventional exterior.

"With small children it is almost essential that you should have their confidence. I start at once with them to make them like me and trust me. If I have gained their confidence and affection, I know that they will be good, tractable subjects.

"I place them on the floor and let them play with toys, and when they are intent on their games and have struck poses that I like I tell them to be very still for a moment and take the pictures.

"It is impossible to take 'snapshots' in a studio. You have to make the children pose just a little bit, but you can make them feel that this is just part of a game instead of a distasteful duty."

*Mothers in the Way.*

"The greatest trouble I have in taking pictures of children comes from their mothers, I really believe. In the first place, the mothers of the children that I photograph really don't know their own children. If the nurse is in the studio with a child that I am photographing, I have noticed that the child will often turn to the nurse in preference to the mother.

"I always make one or two exposures at every sitting, whether the child is good or bad, but if I have not succeeded I ask the mother to bring the child again. I keep on trying until I do get a good result and rarely fail at last.

"It is impossible always to win the sympathy of children at first sight, so that you can photograph them nicely. There was a little boy here recently who was a perfect rogue. He would do nothing but make faces. I placed him in front of the camera, and even while I was focussing I could see him on the ground glass poking his tongue out at me. There is nothing to do with a child of this sort but to wait for another time.

"Children vary a great deal. Some are very shy and others you can make friends with right away. It is always a pleasure to work with them. They do such odd unexpected things.

"I remember one time I went out into the country to take some pictures. I wanted to photograph one of the little girls of the house. She was the shyest, most retiring little thing.

"Well I went busily to work on other subjects, apparently not noticing her much. I almost forgot her. Then I started up-stairs for something.

"Before I had gone halfway up the steps I heard the patter of little feet back of me, and then a little hand was thrust into mine. The little girl had just made up her mind that she could trust me."

*Like Poor Toys Best.*

"It is not the most expensive toys a child likes, but just one that strikes his or her particular fancy for the moment. I have a whole storeroom full of toys, a perfect toy shop, and I am usually able to find something to strike the youngster's fancy.

"It is not the size or elegance of a toy that strikes a child, however. Just the other day a little German boy whom I was photographing became perfectly enchanted by a donkey which wagged its head.

"Let the little boy take the toy home with him," I said to the mother.

"Oh, my dear," she said quickly, "he has a whole room full now!"

"But the little boy kept on crying for his 'esel.'

"The children that I photograph are not self-conscious because of dress. They are so used to wearing pretty

clothes all the time that it is not startling to them if they are on a special dike.

"There is no bad age with children, I have found. A boy is shyer than a girl when both are young, but I find one sex as hard to control as the other.

"Make friends with those you are going to photograph. Study them. Give each one separate attention."

This concluded Mrs. Bennett's remarks about her methods.

Mrs. Bennett herself is a woman of middle life. She would not mind being called this certainly. She wears spectacles, which show that she does not fear the years.

Although she has long been interested in photography as an amateur, she has not given it attention professionally, in her own peculiar fashion, for more than two years. She has participated often in American and British exhibitions, where she has always been given high honors.

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*Care as to the Dark-room Light.* Ordinary plates are so comparatively insensitive to red as to make it practicable to work in safety by the usual red light of the dark room; but the importance of the old recommendation not to expose plates unnecessarily even to the "safest" light is emphasized by a recent observation of Defreggio, that commercial plates, not specially sold as orthochromatic, are sometimes made extra sensitive to red.

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When taking photographs of coins, medals, etc., in consequence of their color and of reflections from their more prominent parts, it is usual not to photograph the coins themselves, but plaster casts from them. A little burnt umber should be sifted with the plaster so as to take off its extreme whiteness, and the coloring matter may be added in proportion to the color of the metal of the original coin.

*A Comfortable Light.* Red light is to many people irritating and unpleasant, and the deep ruby, which is generally considered necessary when orthochromatic plates are to be developed, possesses these drawbacks to a degree still more intense. In looking over the dark rooms at Albemarle Street which Messrs. Richard provide for the use of their customers, we were struck by the very pleasant character of the illumination, which did not suggest a ruby light at all. On examination, however, we found that the light, an incandescent electric lamp, was screened first by ruby, and then by a sheet of "cathedral green" glass, which combined gathered appearance of a greenish white.

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*Stains with Ferricyanide and Hypo Reducer.* The ferricyanide and hypo reducer in the hands of some photographers seems almost always to stain the negatives, whilst others never have any trouble from this source at all. The stains only make their appearance when the negatives are reduced after development and fixing, and before drying, when it is customary to apply the reducer without troubling to wash the hypo from the negative. As there is hypo in the reducing solution itself, there does not, at first sight, appear to be any reason why this should be washed out. As, however, the plate when placed in the hypo to fix, was full of developer, it is certain to contain some developer within its film when it leaves the fixing bath, and to the presence of this developer has been traced the staining. If this is the explanation, and it seems to be a reasonable one, it points to the necessity for washing the negative for a few minutes, at any rate between fixing and reduction. Those who have trouble from these stains would do well to note the explanation.

By Geo. G. Rockwood, New York

By Koshiba, New York

By S. Newman, New York

By S. Newman, New York

By S. Newman, New York

1. By W. Weimer
2. By R. Dührkoop
3. By W. Lill
4. By M. G. Huntsman

5. By A. Knouth
6. By E. Bieber
7. By Wolfram & Co.
8. By E. Bieber

9. By E. Schneider.
10. By E. Schmidt
11. By R. Dührkoop
12. By Wolfram & Co.
13. By Hugo Erfurth
14. By R. Dührkoop

# THE MOTHER AND CHILD PICTURE IN PORTRAITURE.

BY SIDNEY ALLAN.

THE mother and child picture offers to the professional photographer one of the few opportunities to appeal directly to sentiment. Neither the infant, the old man or woman at the fireside, nor the married couple can arouse the sympathy of the outsider in the same simple and forceful manner.

The mother and child picture is apt to produce a purely emotional effect, and the better it does this the more satisfactory is the portrait as a picture. There are many ways of handling the subject.

The decorative way seems to be the least satisfactory. Neither Fig. 2 nor Fig. 4 seems to be the right thing. A madonna composition always looks a trifle strained. It lacks naturalness of expression, and is at its best an imitation. The modern mother does not wear drapery, nor does she garb herself in some outlandish fashion, as Fig. 2. What most people wish to see is a sane, healthy, realistic representation, true to life and the poetry of motherhood. Any attempt at some highstrung estheticism will, in my opinion, injure the beauty of the subject.

The depiction of domestic incidents (Figs. 5 and 7) may be pleasant to look at, but storytelling never constitutes good portraiture. It is almost impossible to combine the two elements. Simple poses that express affection without laying any special stress upon it come nearer to the point (Figs. 1, 9, and 10). Fig. 9 is a charming composition, but rather too elaborate for ordinary studio exposure. The mother and child picture lends itself particularly to the methods of home portraiture. Fig. 10 represents a skilful attempt at an easy, natural pose. The poise of the mother is excellent, that of the boy a trifle awkward. Probably an exposure one second earlier or later would have produced a more satisfactory result. The background has been handled with less discretion than in Fig. 9, but it is well balanced. The three light spots of the jar on the bracket, the picture on the chair, and the vase of flowers brighten up the background and hinder the figures from looking like white silhouettes against a dark background.

Wilhelm Weimer's portrait (Fig. 1) is a good example of straightforward portraiture. In this portrait the rendering of likeness is the principal object, and not the expression of any maternal feeling and pride. I believe that most customers who go to a studio want something on this order. But it is not the best the photographer can give to a mother. It is too stiff and cold, and too regularly composed. Figs. 11, 12, 13, and 14 have a more cheerful and virile note to them. A mother and her child are, after all, not merely objects to be posed in a certain fashion to carry out a certain stereotype style of composition. Their relation to each other is one of the most sympathetic and practical phases of social life, and it should convey in every pictorial delineation some of its domestic charm and emotional wealth.

In this field truly are new laurels to win for the progressive professional, and the Dührkoop pictures, Figs. 11 and 14, show better than any others what might be accomplished in the domain of realistic mother and child representation.

In the composition of such pictures the placing of the two heads needs special consideration. There are only

three ways possible: Either the head of the mother is placed higher or lower than that of the child, or on the same level. The latter is the least favorable. Also Dührkoop has managed it in Fig. 14, by combining a profile with a full-face view. It is really the only way it can be done. Two full-face views on the same level, and two profile views, one larger than the other, would look rather absurd. In Fig. 6 we see the latter. In this particular instance, by showing the entire figures, by making them look out the window, and by treating the portrait like a story-telling picture, awkwardness has been avoided. But if the heads were seen alone, they would carry out my argument.

The head of the mother placed lower than that of the child we see in Figs. 3 and 11. Fig. 3 can hardly be called a good composition. Fig. 11 is much better by applying the V-shape to the position of the heads.

The most natural and generally accepted method of placing the heads is to place the head of the mother higher than that of the child. One feels that it should be so. Nearly all the illustrations carry out this idea. The nearer the heads are together the more affection will be expressed (Figs. 12 and 13). As soon as they are separated they show merely contemplation or some phase of momentary interest (Figs. 4 and 8), and only if the faces are turned toward each other. As soon as both heads are seen full-face all display of emotion ceases (Figs. 1, 4, and 5). The combination of a profile and a full-face view is also here the most satisfactory one. Two profile views can only become interesting by introducing some storytelling element (Fig. 8).

If the accompanying pictures had been sent in for a competition, I would not hesitate long to award the first prize to Fig. 14. The second would go to Fig. 9, and the third and fourth to Figs. 1 and 12 respectively.

Fig. 1, in a way, is the best composition. It is excellent in spacing and line arrangement. Notice how the lace stars on the woman's dress help the position of the child's arm and help to balance the white dress and the lighter complexion of the little girl's face. It would be difficult to talk in the same analytical way about the other three pictures. There is less composition in them. The Dührkoops are even somewhat confused in their line arrangement. But they possess a greater charm. They are true to the sentiment that clings to the subject. They bring to us a personal message, a hint of the poetry of maternal love and the beauty of childish simplicity. And that is, after all, what a mother and child convey first of all—affection expressed through a realistic likeness.

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*An Arrowroot Mountant.* The following mountant keeps very well, and will be found to be a very powerful sticker. Half an ounce of arrowroot is made into a thick cream with cold water, and is stirred until perfectly smooth. It is then diluted to four ounces, and the vessel which contains it is stood in a saucepan of boiling water for five minutes, stirring the arrowroot occasionally. Half an ounce of gelatine is in the meanwhile soaked in four ounces of cold water until quite soft, and this too is placed in boiling water for the gelatine to dissolve. The two solutions are then mixed thoroughly by stirring, half an ounce of wood alcohol in which five grains of thymol is dissolved is added, and the mountant transferred to screw-topped pots.

# PHOTOGRAPHIC VIEW POST CARDS.

BY CHARLES W. JEROME.

WHAT follows is not written for such of my fellow-craftsmen who make platinum cabinets at fifty dollars the dozen and who, at the same time, have more work than they can well do; but for all who receive for their work the prevailing standard prices or less, and who find several weeks out of the fifty-two when they and their assistants could, part of the time, turn aside from studio routine to devote themselves to a lucrative and beneficent, though much neglected, branch of their art and business, these paragraphs are written.

We are all disgustedly familiar with low class "spoony" (and sometimes obscene) post cards; apathetically familiar with the very crude colorings of two-for-five-cents three-color process and even lithographed view cards; and scarcely more than tolerantly familiar with half-tone monochrome view cards. And it might be added, though not to the credit of our profession, that today the majority of the photographic view cards throughout our land are quite poor enough in quality. Certain it is, the possibilities of photographic view cards have not begun to be realized.

Most of us would be glad, by filling hours we could spare in dull seasons and by keeping assistants employed con-

stantly instead of subjecting them to the unprofitable hardship of a total of several weeks "lay off" every year, or the hardship, to ourselves, of retaining and paying them when there was not half enough work to keep them occupied —we would be glad, I say, instead of doing any of these things, to increase our own net annual incomes to the extent of from two hundred to a thousand or more dollars. And the thing is perfectly possible of achievement. Don't you believe it? I have proved it.

Permit me to tell you what I, an ordinary photographer, in a very pretty but not very lively town of six thousand, have done and am doing; and I think that after you have listened many of you will go and do likewise.

When I added to the usual studio work this line I found the shops well stocked—I might say overstocked—with post cards of all kinds, and, among others, a reasonably large variety of photographic view cards of average quality made by a non-resident.

I have already photographed, including additions from time to time, about a hundred and twenty different local views. And let me say right here, do not be afraid of getting too large an assortment. Each negative should be made under the most favorable conditions of light and atmosphere. Say not to yourself: These are for post cards only, and I cannot afford the time and pains. If this is your attitude you will be astonished some morning by finding in the stores, beside your cards, another and a more carefully made set by somebody else; and your venture will be, at least temporarily, at an end.

You will find that churches sell locally, but not very much to transients. If you live in a small place, you must photograph *every* church, no matter how unimportant or how small its congregation; else some will needlessly be made jealous. Views down streets, panoramic and park views, views of public buildings and railroad stations, will sell equally to transients and residents. For obvious reasons, it is usually better to photograph depots when the train or trains are in. The station agent will generally be glad to telegraph, without charge, to the next station back to ask the engineer to stop where you wish and to send forth at the right moment a volume of smoke from the locomotive stack. Except to the owners, or unless the buildings for some reason possess unusual interest, views of single business blocks are poor sellers.

Do not forget, when winter comes, to improve your opportunity to secure negatives of rare and fairy-like snow and ice effects. Delay not. Such beauties are evanescent. And if you have not time then to make up the cards, your negatives, if you have made them, will be ready for you as soon as the leisure day comes.

It is well to have the exact post card size marked on your ground glass. Plates will prove better for you than films, and a 5 x 7 much handier to print from than a 4¼ x 6½ plate.

Of course, develop with reference to "gaslight" post cards.

Next, cut from undeveloped cards strips of from three-sixteenths to one-fourth of an inch in width. Procure a piece of transparent celluloid of exactly the size of your post card. Hold this piece against the plate, and thus decide exactly what portion of the negative the post card is to cover. Lay the negative flat, with the celluloid sheet exactly upon the portion to be printed. Moisten the strips and lay one each against an end and a side of the celluloid and press firmly into contact with the negative. When you print, these will stop the card at the right place.

Next, take Higgins' India ink, and letter, with a medium pen, the title near

what will be the bottom edge of the card and in as small and unobtrusive letters as you can conveniently make. Of course, the lettering on the negative will have to be reversed. For convenience in classification it is necessary to have the number on each card. I place the number first, next the names of the town and State, after that the title of the subject. This is a logical sequence.

I use the Kruxo glossy post cards of both "hard" and "soft" emulsions, according to the negative I am printing. It will be found necessary, however, in every use of glossy cards to prepare the developer right in order to obviate "stress and abrasion" marks; for in most cases it is impracticable to handle the view cards in great numbers so as to exercise quite the same care about bringing surfaces into some friction with each other that would be possible in handling two or three dozen in a batch.

You may have your own ideas about a glossy surface being, for most subjects, less artistic than a matte or semimatte surface. The public also have their ideas, and it is the public's money that you need. And if you want as much of it as possible, you had better use glossy cards.

In printing, print one card to test the time and then go on and print your fifty to two hundred at once from a negative. Slight overtiming with Kruxo cards does not produce serious results, but will even give a pleasing olive tone. Only for snow scenes, where warmth is to be avoided, must the tone necessarily be black and white.

For developer I use metol-hydrochinone. I have found Eastman's non-abrasion M. Q. *perfect* in its use for glossy cards. With it, no bromide of potassium will be found necessary.

Of the bromide I have had to use two drops of 10 per cent. solution and one-third of a drop of a 10 per cent. solution of iodide of potassium to each ounce of developer. The use of less results in the appearance of abrasion marks and the consequent necessity of cleaning them away with wood alcohol.

Keep the developer as cool as possible. At this season I have, before beginning, set the developing tray into a larger tray partly filled with snow, and left it there until the developer was quite cold, when I removed it. There is no harm in this. In fact, it is really a help, as development is more easily controlled, detail is better brought out, and the danger of stain and fog is reduced. You can get the developer so cold that it will waste your time by acting too slowly. But that is not necessary.

It will be found an advantage to mix your hypo bath very strong, as by so doing you can reduce the danger of staining and reduce also the time necessary for certain fixing. But don't leave the cards in a strong fixing bath unreasonably long—neither fix them insufficiently. One ounce of acetic acid No. 8 should be used with each thirty-two ounces of fixing bath. I am inclined to think this arrangement preferable to using the acetic acid in solution as a stop bath between the developer and the hypo. Instead, I use for the rinsing bath plain cold water, frequently changed and as cold as possible. This will practically stop development, and the omission of the acetic acid here permits the renewal every few minutes, without expense, of the rinsing bath.

Washing cards is a problem. A large siphon tank admitting the water through immunerable holes in its bottom is probably the best device; but few of us possess or can possess these. On account of the thickness of the cards they actually need more washing than paper does. But because of the thickness and consequent stiffness the washing results in greater injury to the edges than paper would suffer with the same washing. It is best to wash so as to

give the cards the most actual washing possible for a given amount of friction unavoidably incurred.

Then they must go onto squeegee boards. I use the heavy weight 14 x 20 inch ferrotype boards. These will hold eleven cards each. Roll them under blotters and spread the ferrotype boards out on racks on the floor or shelves before you go home. It is preferable that the cards should not dry rapidly, because if dried slowly they will come off in better shape.

When they come off go over them card by card. Trim every rough edge and bad corner. If in every process you take all pains you cannot, of course, turn out in a day as many cards as you could if you slighted them. But quality tells; and if you always deliver the quality and never let a card go out that is not a credit to your gallery, the words "Made by the —— studio," with name of city and State printed across one end of the address side, will advertise your studio from Manila on the west to Melbourne on the east.

For storing your cards you will need cabinets made with pigeon holes. Each pigeon hole should be numbered, and should be high enough to hold a hundred cards when they lie together, and wide enough not to scrape the cards' edges when you put them in and take them out. The planed half-inch boards upon which bolts of cloth are rolled can be obtained from dry goods stores, will cost you little or nothing, and are just the thing to make these cabinets of. The making you can do yourself.

Makers of sensitized cards will print on the address side what you wish, if you order in large lots. So you can offer to make for a manufacturer, merchant, or hotel landlord cards printed as he wishes if he will order in thousand lots. Real photographic cards of good quality will prove a great advertising medium for him, as they will usually be preserved and looked at often.

It will be found best for your studio not to retail. Also experience has proved it best to go round or to send round an assistant to take orders once every week from every retailer. Do not take an order at any one time from any one dealer for less than five or ten cards of any one subject.

In my order book I have the numbers of the cards in vertical columns, one column on the left of each page with lines ruled across the page between them. At the top of the page and between lines ruled from top to botton are the retailer's names. Thus, all the orders for any given card will be found between two horizontal lines opposite the card's number; and the different views ordered by each retailer in a vertical column below his name—on the principle of the diagram system of representing the multiplication table. This method will greatly facilitate the filling of orders, as you can lay out at once in separate piles all the cards ordered each week from each view, and then go on to the next view.

How much should you get for your cards? Get $3.50 a hundred if you can. If you can't get that take $3.00, but do not, under any circumstances, job them for less. You cannot afford to do it. If you are turning out cards of the highest grade and in sufficient variety, you will not have to do it, not even in the face of desperate competition offering to job at $2.00 a hundred—a price I scarcely see how any man can make unless he turns over his work to incompetent and underpaid girls and lets them skimp it. I have met with this two dollar a hundred competition from a non-resident maker and with the local request to meet the $2.00 a hundred rate. When this request was repeated, I replied that I was making cards for as little as cards of such quality could be

made for and afford a decent living to the maker; that I wasn't running a sweat shop; and that before I would reduce the price 1 per cent. I would quit the post card field. In the face of this competition my cards grow more popular and win larger sales every day. Apparently the $2.00 a hundred competition has not hurt me.

Brethren, right here let us strike hands not to make sweat-shop prices. Then we can look the world and our employees in the face, for we won't feel that we have to pay our assistants sweat-shop wages. And if we pay them right prices we can and must require right quality in their work. And I think it will then be found, in most cases, their intention and pleasure to render it.

How many cards can you job in a year? That depends largely upon the size and kind of town you work in. Small towns will probably sell more than large towns in proportion to population. From my own experience I should say that an average town of, say, six thousand will use in twelve months about thirty thousand *photographic* view post cards. This estimate, large as it may seem, will, I believe, *be found to be quite conservative.*

This article is, I am conscious, a long one; but I have made it as short as was consistent with setting forth what appeared to me to be necessary to say on so important a subject. It is written now, rather than later, so that those who are interested can, this season, avail themselves of its suggestions.

## SOME FAULTS OF PHOTOGRAPHERS.

UNDER the general title of "Art Chats," J. E. X. is giving a series of useful papers in our contemporary *Photo Notes*. This month he takes up some of the faults of the photographer, which we reprint below:

The progress of photography as a graphic art-craft is hindered in several ways to which it is desirable to draw attention. The most important is perhaps lack of study and knowledge not simply of art, but of nature. A study of the accepted conventions of painting and of other crafts is not of very much service to the photographer, though he generally thinks it all sufficient, for the great majority of those conventions are quite inapplicable to his own craft. A study of the manner in which the three fundamental laws of art are observed by masters of other crafts is invaluable, but it will not suffice for the purpose of understanding how those laws are to be applied in photography. For this the study of nature itself is essential, and if this study is accurate and his knowledge of his own craft thorough, it will not be long before the photographer begins to see how the laws should be applied, and to evolve some photographic art conventions. The trouble is that while most know much about photography, in place of understanding nature, they have but a little and superficial knowledge of painting and its conventions, and so go off on the wrong road altogether. It is not too much to say that the majority of them cannot see nature, not knowing how to look at it. The painter gains his knowledge direct from nature by continual observation and sketching. The photographer should adopt similar methods, not employing the sketch book, but the camera. There is, perhaps, no better educational practice for a young photographer than the following: Pick out an interesting locality (one may soon become weary of an uninteresting one),

and photograph that locality at all times, and in all weathers, and from all possible standpoints within, say, a radius of a hundred yards, until it is felt that one has both seen and photographed it thoroughly and knows the best and worst of it in every possible aspect. Look upon the results as simple sketches, and then, knowing where there is the greatest possibility of securing a good photographic picture, proceed to get that picture if possible. It will not be easy, for something better than the best "sketch" is wanted, which will involve a very "fine adjustment" of point of view, and a very careful selection of time and weather. Many more "preliminary sketches" will perhaps be required, and possibly the very final result will not be altogether satisfactory, still the knowledge secured will be infinitely greater than that gained by haphazard rambling.

Another hindrance to progress, for which there is much less excuse, is lack of sufficient knowledge of the scientific side of photography. All that many photographers can do is to secure sharp focus on some particular object, give a reasonably "correct" exposure, develop "a good printing" negative, and produce a print of good technical quality. They then feel most unjustifiably satisfied with their production, their knowledge being insufficient to tell them that they might have done very much better. In the matter of focussing it is not enough to consider simply the sharpness of definition in the principal object, one must also study the unsharpness of the rest of the image, and consider the varying effects, first of depth, and second of marginal lack of definition due to aberration. One must know all the essential characteristics of the lens and all methods of using it, and should have a sound knowledge of the various phases of depth of field and of definition. As regards exposure, it is not enough to be able to calculate the "correct" exposure with the aid of a meter; we should also be able to estimate the effect of intentional over- or under-exposure. Then, again, we should be familiar with the effects of using color-sensitive plates and filter screens, sky-shades and foreground shutters, all of which important accessories are absolutely neglected by the vast majority of photographers. Further, many photographers are wonderfully inexpert in setting up a camera, and find it such a business to set it up in one spot that they shirk the task of shifting to another, and perhaps much better, point of view. They have never studied the proper method of adjusting the three legs of a tripod, and so fumble over one of the simplest matters. They have a general idea of the use of a rising front and of swing back, but are confused over the use of the two together. A falling front or a swing front is so little appreciated that in many cameras both movements are left out.

Then there is the matter of perspective. Though the lens draws all its pictures in plane perspective, the photographer never troubles to inquire into the nature or peculiarities of plane perspective.

Another great fault of the photographer is ignoring the ease with which photographs can be duplicated. A painter or architect never hesitates about beginning his task over again when he finds he has made a hopelessly bad start, and, therefore, the one keeps a large lumber room and the other a large waste-paper basket. They will throw away several weeks' or months' labor so as not to disgrace their craft and themselves, but the photographer makes a terrible fuss about expending a dozen penny plates on the one object, or even about replacing a defective print by a perfect one.

# WHAT HAVE YOU TO OFFER?

BY W. F. OLIVER.

I FULLY realized the trend of my logic long before reaching the conclusion of my hastily presented arguments in the March issue, that if they might be credited with any weight, it was but to show that escape from the benefits of Association work is impossible—to prove that, if they so desired, it would be impossible for the Associations to so hedge themselves in as to keep the ultimate advantages unto themselves alone. On reflection, it appeared my attempt was unique; the conventions had their yearly advance praises sung, but the "National" Association as an Association seemed to have had no champions. While I have not the presumption to assume that nothing escaped my mental vision, that membership in the Photographers' Association of America is an obligation rather than an attraction or a benefit, still I shall be pleased to have the "insider" understand my title is a personal question.

### *Constitution and By-laws.*

The Photographers' Association of America was organized for—what? What *were* its original, what *are* its long sustained aims, objects, and aspirations? I don't know, do you? The Constitution might prove to be the Apocalypse, but who has the Constitution? During the limited years of my membership the Constitution and By-laws have remained more than a will-o'-the-wisp, they have escaped sight as well as touch. Valiant effort in recent days has resulted only in a case of "Button, button, who's got the button?"

The Photographers' Association of America will soon enter upon its thirtieth year of existence; what has it done? No, I am not insulting your intelligence; though "every knock is a boost," I am not "knocking." I am not inquiring about effects and influences; these are themes for the gifted orator. I do not ask the rehearsal of well-phrased resolutions, of heart-felt obituaries or votes of "sympathy and support" extended to ideas or efforts originating with some other individuals or organization. In the past twenty-eight years, on more than one hundred occasions an organized body has met "in convention assembled," fully empowered to pass legal (parliamentary) enactment; again I ask, "What has it done?" and I mean simply this: if anything has been done, it is on record; if there is anything on record which is worthy of record, a *resume* should be placed in the hands of every professional "outsider;" if the record is unworthy, it should be placed in the hands of every "insider," glaringly embellished with the title, "What have you to offer?"

### *Coöperation.*

Many of you will recall reading in the 1907 Association Review, Mr. T. Dixon Tennant's contribution, "Co-operation between State and National Associations." You may also remember that the ideas Mr. Tennant advanced were the dominant note of the 1908 Annual; one could not follow the thoughts of the various contributors without realizing the two paramount ideas and ideals—an increased membership and closer affiliation of the State with the National Association amounting to a complete amalgamation of the entire photographic body. Commendable as these articles were, they invariably presented two

serious deficiencies; though the "text" was the Association, the sermon was devoted to the Convention; though complete amalgamation was upheld as the ultimate ideal condition, there was no suggestion of the aims or objects to be attained when such unity became a reality. The author of that beautiful ballad, "A Man without a Woman," was unquestionably a philosopher. Let me paraphrase a bit and sing:

> An Association without an object
> Is like a ship without a sail,
> A boat without a rudder,
> Or a fish without a tail;

then ask yourself if it matters whether it be catboat or battleship, sardine or whale. There is no material difference between nothing times nothing and nothing plus nothing. The Association needs men, but it needs them for a purpose.

Mr. Tennant quoted authority in defining the word coöperate as: "To operate together or jointly for a common object to a common end or result." For fifty-one weeks of the year there is neither association nor coöperation of the attending Association members. For three hundred and sixty-five days the non-attending member is unreached by the suppositional power of fraternal assistance, and only once remembered by official recognition—when he gets his receipt for dues; yet there are thousands who are destined never to be permitted attendance once, or more than once, in a lifetime. It is unreasonable to suppose a person ever joined the Association till the year he attended a convention; none were ever invited, none were ever advised to do so. However, let us stretch the imagination and assume that some unfortunate joined in recent years, but has thus far been unable to attend the "big show;" let us transcribe in black and white just what he has received from the Association directly, and then see if it redounds to the credit of the organization.

*Association Benefits.*

The "unfortunate" joined the Photographers' Association of America in 19— by remitting the required $5.00 for fee and dues; in return he received a receipt, eventually a button and the *Association Review*. He immediately proceeded to put himself in touch with Association affairs by a careful perusal of the *Review*, only to be disappointed by finding the *Review* did not review anything; it contained no reference to any specific work or acts accomplished in the past, no allusion to prospective efforts or legislation. But for the "Official Program," he would have been as ignorant of affairs as in previous years—and it was then so late he could not attend had the program included a distribution of "yellow-backs." By counting he could learn the theoretical number of "active" members and note the very limited five-year "stars." There was no report showing the financial receipts and expenditures for the previous year, nothing to indicate whether the Association was opulent or on the brink of insolvency, whether the Executive Board received a bountiful salary and retired on a pension or labored through reverence for the one greatest virtue. The score or more of portrait reproductions, some of which were good, all of which were supposed to be good, and a few of which were attractive—to him, did not escape his careful observation; regarding these, however, there were no comments except the thanks extended in the preface, and his admiration could be guided only by the names of the artists represented.

The second year, being forgetful or "broke," the unfortunate non-attendant failed to remit his dues till

after Convention, and discovered that the Association had long since learned to consider a $2.00 bill as the only indication that a member was "active," or ever would be; even the *Review* was not forwarded "on suspicion." The details of his first year's membership would answer for the second as far as his relations with the Association were concerned, but in the meantime he had increased the number of his subscriptions to professional magazines and thereby gleaned the substance of the Convention's proceedings and deliberations. The third year the "unfortunate" waxed enthusiastic, sweat blood producing six masterpieces (?) in portraiture, and forwarded same to Convention.

### *Convention Pictures.*

They came back all right. The box-lid had been reversed, showing the box had been opened. There were indications that the pictures had been "hung," but he found no card of thanks, and he often wondered if the committee felt obliged to place them with the face turned toward the wall. He has not exhibited again. It is needless to recite details of ensuing years. Once there were "rumors" of a momentous issue to come before the Convention; had he known exactly what it was, he might have pawned his wife's watch and mortgaged the piano in order to be present and cast his vote for the welfare of the craft, but, perhaps fortunately, "the man on the ground" was considered sufficient unto the occasion. Realizing that quality certainly was not unvarying, though honors were equal, he felt that there might well have been some considerations accorded the reproductions of the "Salon" pictures in the *Review* and *Annual*, besides an apology for the injustice resultant from reproduction. Liberal subscription to the professional magazines has kept the unfortunate informed of all there was to tell, but he has not failed to note in later days how much space is devoted to the things that are to be and how very little to things that have been; like a full-page advertisement of a shaving-stick, since the "do-fest" has put to rout the "talk-fest," so far as the magazines are able to report, the advertisement has far greater magnitude than the product—though by judicious spreading the latter may be made to last from August to the following January.

### *Summary.*

To summarize the experience of our imaginary hero: He has paid into the treasury of the Association a total of $15.00; in return he has received nothing "official" except receipts, buttons, and programs. He has never seen the Constitution and By-laws, is absolutely without positive knowledge of the principles on which the organization was founded, and does not know whether he has received just treatment according to existing laws. He has paid to the magazines two or three times the sum paid to the Association in order to obtain information to which, as a member, he might claim to be freely entitled. He has never seen a Convention picture unless it chanced to come to his State Convention seeking a prize in the open class. He has never seen or heard of a published address devoted to purely art considerations and presented or prepared by a professional photographer. He has yet to learn of an occasion where a professional photographer has gone on record with any "criticism," analysis, or appreciation of prize-winning photographs. To all appearances, the professional photographer who has assumed the capacity for the critical and artistic judgment of pictures has done so without record of the basis of his judgment or the grounds for his assumption.

Through his magazines our hero has followed closely the various projects that have been presented at Convention, and awaited the reports of numerous committees; he is watching and waiting yet. He is informed that an evening will soon be spent in discussing the Constitution and By-laws, and hopes he may see them ere long, that in case he should attend Convention this year, he will have given them mature consideration. As the situation stands today, after six years' continuous membership, he has nothing to show the public but a button as the insignia of union with the grand old P. A. of A., and he has yet to find a person not a photographer to whom those letters carry any signification; he has become alive to the fact that whether it be an insignificant bronze button bearing the four diminutive letters, or a broad parchment spectacularly engrossed Photographers' Association of America, it will never impress the public with the significance of a monumental institution until the organization stands upon a broader footing and keeps itself before the public eye incessantly.

*Influence of P. A. of A.*

I have been picturing a fictitious character, but I have not been presenting imaginary conditions—and there are less than 1 per cent. of the photographers of this country to whom these conditions do not apply some of the time, less than 2 per cent. to whom they do not apply most of the time. However, it is not alone the injustice of the Association's remissness in "diffusing scientific knowledge among its members" which I decry; just as the most magnificent structure is not without its dependence on the humblest clay, so the Association cannot attain its honored destiny until its foundation is extended to every section of its proclaimed field. Place conspicuously in every American studio the name Photographers' Association of America, make it impossible to see professional portraiture without the talisman P. A. of A., and the impressive influence of the organization will become a verity instead of a wordy claim.

Three years ago, in a notable address, the speaker said: "I ask whether or not this Association, the National Photographers' Association of America, which for twenty-six years has been deeply concerned with the advancement of professional photography in the United States, is not in a position today to shape public opinion aggressively where it touches upon photographic interests?" Three years later—after twenty-nine years—I see: "Owing to the jealousies and ill feeling caused by competitive exhibits . . . it was decided that . . the 1909 exhibit is to be wholly complimentary," and I do not hesitate to answer, No, it is not! I submit that an organization which is not in a position to "aggressively shape the opinion" of its own members is not in a position to influence the opinion of the public; I submit that an exhibit on which no authoritative considerations are passed can lay but little claim "to improve the science and art of photography;" I submit that it offers nothing to prove the Association has fulfilled its obligation "to inaugurate exhibits of photographic productions on a scale commensurate with the progress of the art."

*The Academy.*

You may recall that on the date my quotation was uttered there was launched a project to build a gilded cage wherein the "elect" should dwell in peaceful and eternal security; submitted on the theory that thoroughbred eggs must hatch thoroughbred chicks, and thoroughbred chicks ultimately become the "blue ribbons" on the bench, it

has apparently ended in the question that has puzzled master minds since the dawn of creation: "Which came first, the chicken or the egg?" To all appearances the project and every feature associated with it have been permitted to become defunct. Is this an exhibition of business acumen or "devotion to our beloved art?" Probably no other convention ever listened to so many valuable suggestions and feasible propositions within so brief a space; take away the name "Academy" and the formality of its institution, and nothing desirable remained which was not easily within immediate inception and ultimate realization; take away from the proposition its power to make or unmake reputations, and there would have remained no feature to which the most discriminating could object. If, instead of centring all interest on the outer ornamentation of other notable institutions, there had been an immediate effort to assemble and prepare the raw material and a determination to master the fundamentals involved, the Association would now be honoring the date of its second nativity.

American art—the recognized variety—is often spoken of as being unfortunate in its lack of "traditions" as compared to European art; still it would be unreasonable to suppose that our earliest painters were not influenced by foreign art more than by their immediate contemporaries. In photography as photography we have no foreign traditions to seek or with which to compare; if we are to have "traditions," we must make them as we pass along.

### *Judging.*

A recent editorial in this magazine expresses approval of the no-prize system "until such time as a more satisfactory method of judging has been arrived at, and which is of necessity a long way off." Through sentiment as well as courtesy I refrain from inquiring what the method is to which he referred; I do not believe he could summarize a method, and space would not permit elucidation of the methods. There have been times and places that certain percentages were allowed for posing, lighting, retouching, chemical work, etc.; this plan had the undeniable advantage of possible transcription to printed record. Since the "high-art" bee lodged in the craft's bonnet, such considerations have fallen into disrepute, and, worst of all, there has been nothing introduced to take their place. When asked for the notable features of merit in a first-prize winner, I heard one of the judges say: "Why-er-er-, it is so-er-er-simple. Er-er-it's such a er-er-beautiful thing." Another time, a portrait was given second place on account of the "distracting spots." I couldn't see them, but I think there were two; the "winner" had but one, and that was "it." The next year the same judge selected for the winner a portrait that was all spots—as unconfusing as a checker-board and as peaceful as a Scotch plaid. Asked by a friend (I think) my opinion of a certain first-prize portrait, presenting wonderful painted-in "stunts," I remarked that it looked to me like a cut-out photographic figure pasted to an oil painting. You may easily imagine my chagrin when informed of the comments of the painter-critic-judge who made the award, viz.: "If it were not for the face, figure, and drapery, it would be an almost perfect Botticelli." I fell to wondering if I had entertained a false conception of the phrase, "Hamlet with Hamlet left out."

### *"Appreciation."*

To the novitiate, it might easily appear that the only things on which the Associ-

ation has set the stamp of its approval are one or two books, perhaps more simple than ample, and not wholly unquestioned by higher authority, developing tanks, all the paintings of all the old masters, and a few of the portraits by a few of the modern photographers. It was with reluctance I made the semblance of artistic comments in the foregoing paragraph. I do not question the justice of any award nor the perception of any judge, but I have not failed to note that in all the "appreciations" I have been permitted to see, whether the art critic were discussing one of the old masters or a painter of modern times, he possessed the ability to "spill ink" over several columns; after a full appreciation of the man, his works came under the broad divisions, conception and execution. Execution was again subdivided, bringing out every phase and feature of the artist's technique. That pictorial photography might be analyzed as fully and intelligently it would be folly to deny, and that every photograph receiving an award should have an "appreciation" of record seems equally desirable, necessary, and just. Had I been personally concerned in the awards above mentioned, and possessed my record of appreciation, do you suppose I would care if I were turned down the year Reynolds gained a lap over Rembrandt or Botticelli a handicap over Reynolds? But these things cannot be accomplished unless we have judges who can criticise with their hands in their pockets, who can express appreciation of tone values without wiggling their fingers, and condemn harshness lucidly without clinching the first and making faces; it cannot be accomplished till we have a language by which competent art critics may make their criticisms applicable to photography, and this brings me to the feature of the Constitution—"fostering literature."

*Failure to Stimulate Discovery.*

The Convention speaker came to be known as a spell-binder and hot-air artist taking an unholy delight in the sound of his own voice. It is not for me to say how justly this stigma was attached, but if it be unjust, I fail to see why those who have ideas to offer should have any preference of speech over the "press" provided the Association shows any desire to foster their expression; neither do I see any excuse for the failure of the Association to "stimulate discovery" by showing its appreciation of the investigations and determinations of Hurter and Driffield the considerations of Mr. Steadman on "actinism," etc. Investigations along these lines would have brought the science and the art to a common nomenclature, the absence of which is now our greatest difficulty.

The art of painting and the teaching of the art have been going on for centuries. The recognized masters were once students, and it might not be creditable for us to criticise the methods by which they were taught, yet within the past ten years several great minds have been centred on a study of color and the theory of color; such notables as Milton Bradley, Albert H. Munsell, and Dr. Denman W. Ross have spent years of investigation, not with the expectation of making better artists than the world has ever known, but to facilitate teaching and to produce a nomenclature of color and color values which will make art criticism comprehensive and comprehensible. Speaking of the labors of one of these gentlemen, a technical art journal says: For years he has been the most helpful and inspiring influence in this country." A similar field of investigation is open to the photographer; could one ask for anything more attractive or more gratifying in returns?

Business, art, fraternity—the circle is complete—and we return to the individual and the "fraternal" appeal (in the aggregate) extended to him. We are all one in occupation and interests; put the "Gone to —" sign in the window and lock the door; come (to the Convention) and be one of us; let your slant-eyed, moss-backed competitor with pigeon-toed intellect stay at home; let him steal three or four of your customers while you are away if he will, but remember this: At the Convention you will learn how to make good portraits, how to make people think they are good whether they be or not, how to make a display that will stop a blind man on the opposite curb, and, above all, you will be so stimulated by the glorious manifestations of fraternity that you will be able to put your competitor down and out in season for next New Year's announcements.

*Certificate of Membership.*

At the "Niagara" Convention a proposal was made to issue to each member of the Association a certificate of membership suitable to be framed and displayed in any reception room. With his unfailing sound business judgment and dominating courage, a prominent member said, in substance: "No! I have been a member since the day of organizing, I have been a worker ever since, and I object to any form of recognition that will place the one-year member on an equal footing with the veteran; issue a certificate at the end of five years' continuous membership, and I will give the measure my most hearty support." After learning I was a member of the "Committee on Membership" (which, for some reason unknown to me, failed to report at the last convention), I gave the matter much consideration. It did not seem to me that the certificate should be held up as an inducement, a bribe for the payment of five years' dues, neither presented as a reward of merit to those who had already done so; rather would I have it understood that a five-year certificate indicated that the member intended to be a member for life. Today I would add that if the Association were to adopt this certificate plan and at the same time progress according to its possibilities, I believe nothing would induce the members to desert by the time certificates became due. I recommended to the committee "that while we advise the issuing of a certificate to members of five years' standing (continuous), we do not allow the matter to drop there; that we try to show the primary importance of a large and permanent membership, in order that the Photographers' Association of America shall mean a constant association instead of an annual four-day convention. I believe a wide-awake committee of liberal size, endowed with liberal powers and some cash, could accomplish much if their energies were expended on gaining permanent membership, whereas present aggressiveness is unavailing but for the present year and its special attractions."

*A Standing Committee.*

I have desired (and I hope I have not been misunderstood) to refrain from even the slightest criticism of any National Convention as a convention, or of any official for his efforts in its production; there is no precedent for claiming the principles governing the Convention one year must influence the program of the next. Furthermore, in arranging an affair of such magnitude as a modern "National," a committee the size of the Executive Board is doing all that should be demanded; but if the Association is ever to institute progressive policies, it must of necessity institute a commission or a special board, the

election so arranged that it will never be without "veterans" of two or more years' service. There never existed a problem that could not be solved by common sense plus dollars and cents; of the former we know the Association has an abundance; about the latter we need not worry. Any corporation laying claim to a piece of ground large enough to dig a hole in and rocky enough to make the digging expensive can sell "mining stock" galore. A share in the Photographers' Association of America ought not to be a drug in the market.

We have had two "business" conventions, in the interest of the photographer; let us have one more—on the side—in the interest of the Association. Let us take the modern business corporations for our guide, issue our "prospectus" along the lines they pursue, and keep everlastingly at it. Let us submit to every American professional photographer:

*Objects of the Association.*

A statement of the original purposes of the Photographers' Association of America and what it has thus far accomplished.

A statement of what it proposes to do in future, including a declaration for immediate effort toward a complete amalgamation of the entire American professional photographic body and details of the objects to be attained as such amalgamation advances.

A statement, computed on various bases of membership and annual assessment, of absolute, guaranteed returns or benefits to every member, attending Convention or remaining at home.

Let these plans include a semblance of the following resolutions:

That a competent critic of art and photography shall be present at every convention.

That we particularly encourage individual effort.

That every exhibitor, if he requests, shall be entitled to a written criticism of at least one of his productions.

That from every Convention exhibit (the entire collection) there shall be selected one or more of the most creditable productions, and a reproduction of such selections, together with the printed comment, criticism, and appreciation of the critic, be placed on file as a part of the archives of the Association, to preserve in perpetuity a printed and pictorial record of the "progress of the art."

That a duplicate of such reproductions criticisms, and appreciations be forwarded to every member. (Dührkoop has demonstrated that printer's ink may be used without apology.)

That a suitable size and form of duplicate be permanently adopted in order that members may preserve such valuable and educative record in a manner becoming its nature and importance.

That every member shall receive prompt and direct information of all the business transactions of the organization, advance notice of all important matters to come before the business sessions, and a complete report of the Conventions.

That, feeling it is an honor to be a member of this Association, the Association desires to honor every member, and will issue a certificate of membership to such as maintain permanent affiliation.

In conclusion, I beg to say that whether or not I am again permitted to enter the councils of the Association or feast my eyes upon its annual wealth of pictorial exhibits, I hope soon to possess a certificate of membership so designed that once a year I may remove it from its frame and insert beside those already assembled there a tiny button—a button as widely known, as quickly recognized, and as devoutly honored as the three links or the square and compasses, an imperishable token of Freemasonry in the Craft Photographic.

## TWENTY-FIVE YEARS OF "ARISTO."

For twenty years Aristo products have been at the disposal of the photographer—and twenty years is a long time in the history of photography. For twenty years Aristo has been recognized as the standard highest grade photographic paper—and this reputation has been based on quality alone—not because Aristo was lowest in price, easiest to manipulate, but because it was and is the cheapest and best paper when measured by results.

"We believe permanency is the keystone of photographic success, and all brands of paper bearing our trade mark are manufactured on this principle. *We hold our consumers' reputation and success identical with our own.* We surround both with every safeguard known to chemical science and our own experience."

The above Aristo motto is known to every professional, and it has been lived up to both in spirit and in deed. "We hold our consumers' reputation and success identical with our own." A business founded on that basis must succeed—and Aristo has succeeded—because the quality was there, and so evident that it could be seen and appreciated by the consumer of the product whether he knew the name "Aristo" or not.

Time out of mind, substitutes for Aristo have been offered—offered with all sorts of alluring baits—lower cost—less labor—yet Aristo sells and sells, because none of the substitutes can show the quality.

Quality made Aristo—quality keeps it in the front rank and there it will remain until some other product can show a higher degree of excellence and that is something that the last twenty years has failed to produce.—*Aristo Eagle.*

## ALL ROADS LEAD TO NEW YORK.

On April 7, 8, and 9 all roads will lead to this great Metropolis and directly to the Convention Hall of the Professional Photographers' Society of New York, so pack your grip and come along, first impressing on the mind of your Receptionist that she in turn impress on the mind of your customers that you are in attendance at the Convention of all conventions, photographic or otherwise, held in our United States. If he or she be sufficiently clever and enthusiastic, the customer will want to come back on your return and loosen up a few extra shekels to help pay a man who is bright enough and shrewd enough to come down here to the "Great White Way" and absorb some of the newest ideas and latest productions. Keep right abreast of the times and impress your customers that you are doing so, and *it will pay, and pay big.*

Before leaving do not forget to apply for your railroad certificate entitling you to a fare and three-fifths for the round trip from your home town; be particular about this, even though money comes so easy to you that it makes no difference, as you are going to help the other fellow, and it is absolutely necessary that we turn in the full number of certificates at the Convention Hall. I want to impress this point even at the risk of reiteration, so as to receive the *reduced rates.*

Arrangements have been made to cover all points North, South, East, and West, and for the benefit of Associate Members as well. If, however, there should be any point so remote as not to have been included, be sure to make inquiry of your local agent as to the nearest point at which certificates can be obtained. Buy a ticket to that point, and then take up your certificate to be redeemed at the Convention Hall. There should be no difficulty, as I have received assurances from the various Trunk Line Associations of their notification of all their officers that attendants at the Convention of the Professional Photographers' Society of New York be granted this reduction. If you can make it convenient to arrive in New York on the day prior to the opening of the Convention, so much the better, as you will be enabled to attend and help at the Open Picture Exhibition and Reception to the Press and Public. The New York boys are doing everything possible to promote this feature; try to join with them and help further its importance. Moderate rates have been arranged at the Hotel Imperial; go there and make yourself at home; you will find a number of the boys there who will look after your comfort and interests, and if there be any tangles, look up the room of your Executive, and he will deem it a privilege to help straighten things out and endeavor to make your stay in town as enjoyable, instructive, and moderate in cost as possible.

There will be open house among your fellow-workers, their intentions are good, and their hearts are in the right place, so if you do not find what you want, ask for it, or it will be your own fault if you do not receive it. Make up your mind to be with us. Advertise the fact that you have gone to the New York Convention for three days, and that you will be back with *new ideas and new inspirations. It will pay you several hundred per cent. on your investment* to see and hear the following demonstrations and talks on art and methods as applied to our profession.

Mrs. Gertrude Kasebier will give a demonstration on "Composition," showing how she accomplishes her marvellous tonal effects.

Mr. Puffer, of Fifth Avenue and Palm Beach, is going to show how he manipulates artificial light in his studio.

Mr. Dudley Hoyt, Past President, Diamond Medallist, etc., is going to show how he drapes his subjects and gets his clever light effects.

Mr. E. B. Core, photographer of children only, is going to give an exhibition of his method of photographing children in the home, with home accessories.

Mr. G. W. Harris, whose studio is said to be the best systematized in the country, is going to give a straight-from-the-shoulder talk on Studio System.

Mr. Ryland Phillips will give an illustrated lecture on "Skylights and Modern Lighting Methods," with many portrait slides.

Mr. Henry Havelock Pierce, the acknowledged leader in portraiture in the home, is going to get up from the floor and tell a few things worth knowing.

Then there is the chance to secure the Fifty Dollars in Gold for some simple idea or new device that can be applied to our work or its business methods. Write to Mr. Carl Frey, at Utica, N. Y., today, briefly explaining your plan or device, that he may allot you a place on the program and arrange a time for your demonstration. This must be sent in before the Convention for its proper classification.

The dinner which proved such a wonderful success, with some two hundred and fifty in attendance last year, will again be held at Terrace

Garden, and I have prevailed upon Mr. MacDonald, "Our Pirie," to take up once more the arduous work of preparation and oversight of this mammoth affair. You may rest assured it will be carried out with equal elaborateness of arrangement and the abundance of hospitality which so characterized this feature last year. There will be wine of an excellent quality, music, and song, and I am in a position to know that the Metropolitan Section has arranged a delightful little surprise in the nature of a souvenir, of which everyone present will be a recipient.

This will be *The Convention;* you cannot afford to miss it.

Fraternally yours,

A. F. BRADLEY,
President P. P. S. of N. Y

## COMING CONVENTIONS.

OUR readers who are members of State Associations should read the following announcements and see that they have their plans laid and dates properly marked up on the calendar. Those professional photographers among our readers who are not affiliated to a State or National association would do well to get in touch with an association secretary and ask for a membership blank.

Professional Photographers' Society of New York, New York City, April 7, 8, and 9. L. Minor Sherow, Ossining, N. Y., Secretary. No prizes for pictures, but the exhibition will, for the first time, be opened to the general public. The dues are only three dollars for either State or associate members. The banquet alone is worth the year's dues. For the other good things offered, see President Bradley's letter elsewhere in this issue.

Professional Photographers' Society of Pennsylvania, Philadelphia, May 4, 5, and 6. Ryland Phillips, President; E. E. Seavy, New Castle, Pa., Secretary. This meeting is modelled on the New York plan. Last year's meeting was a great success, and the forthcoming meeting promises to be even greater. A special feature of this meeting will be a display of pictorial and illustrative pictures, the sort of pictures that please the public and sell in large quantities, or are bought up by the publishers at good prices. This exhibit will be open to the public, and representatives of the big publishing houses and calendar producers will be specially invited. Another feature of this Convention is that it offers an opportunity to visit the new Goldensky studio—one of the most remarkable and beautiful studios in the country, Mr. Goldensky having generously turned over his studio to the visiting photographers for two whole afternoons.

Illinois Association, Springfield, Ill., May 4 to 7. H. W. Harper, Secretary, Joliet, Ill.

Iowa Association, Waterloo, Iowa, May 11 to 14. H. E. Voiland, Albia, Iowa, Secretary.

Missouri Association, Columbia, Mo., June 15 to 17. J. O. Coffin, Lexington, Mo., Secretary.

Indiana Association, Winona Lake, Ind., July 5 to 9, offering prizes and trophies, including the Diamond Medal. E. K. Shalley, Secretary, Berne, Ind.

Wisconsin Association, Appleton, Wis., July 6 to 9. E. H. Harwood, Appleton, Wis., Secretary.

The Photographers' Association of America. Frank R. Barrows, President; Geo. W. Harris, 1311 F St., Washington, D. C., Secretary. The National Convention will be held this year in

Rochester, the world's greatest photographic manufacturing centre. The huge factories, open for your inspection, are in themselves sufficient excuse for a trip to Rochester. The program of the convention, however, is of special interest, and many unusual features are being arranged. This is the one great convention of the year that every professional photographer should make every endeavor to attend. Remember the date, July 19 to 24, the biggest photographic week of the year.

The Photographers' Association of New England, Boston, Mass., August 3, 4, and 5. G. H. Hastings, Haverhill, Mass., Secretary.

Nebraska Association, Lincoln, Neb., October 12 to 15. A. T. Anderson, Kearney, Neb., Secretary.

## TWO SOLAR PRINT PROCESSES.

THE following method of making this particular form of camera enlargement is given by Drs. Hildebrand and Felicius. The raw paper should be that specially made for this purpose by Steinbach & Co. (G. Gennert, New York, agent).

*The Iodizer.*

| | |
|---|---|
| Acetic acid | 90 grams. |
| Skim milk | 2¼ liters. |

Boil and filter. To 1 liter of the filtrate add:

| | |
|---|---|
| Potassium iodide | 33 grams. |
| Potassium bromide | 8 grams. |

The paper should be painted with a flat brush, or pad of cotton wool, with this solution, and dried quickly in a dark, warm place.

The dried paper is sensitized with the following solution, which is applied in the same way:

*The Sensitizer.*

| | |
|---|---|
| Distilled water | 500 grams. |
| Silver nitrate | 42 grams. |
| Acetic acid | 63 grams. |

A deep yellow or red light is, of course, necessary. The paper should be exposed wet.

*The Developer.*

| | |
|---|---|
| Pyro | 6 grams. |
| Acetic acid | 80 grams. |
| Citric acid | 6 drops. |
| Distilled water | 1000 c.c. |

The print should be immersed in the above, and when sufficiently developed rinsed with water and fixed in a 1 to 8 solution of hypo for five or ten minutes.

The following method is also given, but it is a little more trouble:

*The Iodizer.*

| | |
|---|---|
| Sulphuric acid (pure) | 0.7 gram. |
| Hydrochloric acid (pure) | 1.5 grams. |
| Linseed (whole) | 140.0 grams. |
| Water | 2000 c.c. |

Boil and add:

| | |
|---|---|
| Sugar of milk | 170 grams. |

Then boil for half an hour, filter, allow to cool, and add:

| | |
|---|---|
| Cadmium bromide | 22 grams. |
| Potassium iodide | 34 grams. |
| Cadmium iodide | 22 grams. |
| Water | 800 c.c. |

Then add:

| | |
|---|---|
| Mercuric chloride | 1.5 grams. |
| Water | 200 c.c. |

*The Sensitizer.*

| | |
|---|---|
| Silver nitrate (pure) | 100 grams. |
| Nitric acid | 10 drops. |
| Water | 1500 c.c. |

*The Developer.*

| | |
|---|---|
| A.—Pyro | 25 grams. |
| Citric acid | 15 grams. |
| Water | 4000 c.c. |
| B.—Eikonogen | 10 grams. |
| Potassium metabisulphite | 5 grams. |
| Hot water | 2000 c.c. |

For brilliant negatives 1000 parts of A with 10 parts of B. Increase of B gives soft results and reduction, harder results. The temperature of the developer should be 104° F., and can be stopped by immersing the print in cold water or a 5 per cent. solution of common salt. For fixing, a 1 to 3 solution of hypo should be used, and the prints left therein for one hour. Iodized paper will keep for a month in a cool, dark place. In order to save the silver solution it should only be applied to that part of the paper on which the image is to appear. With a little experience and care ½ gram (7¾ grains) of silver nitrate will suffice for a sheet of 50 x 60 cm. (20 x 24 inches).

## STAND AND TANK DEVELOPMENT.

STAND development is frequently carried out in a modified sort of way by developing several small plates in one large dish, and using a considerable amount of water with the developing solution in order to prevent its action being too rapid. In this way the dish can be occasionally rocked, and the troubles which so often arise from the use of a tank or grooved trough are more or less prevented.

In some recent correspondence in a contemporary it was stated that unless the plates in a tank are from time to time turned "end for end," the lower end of the negatives will be denser than the upper. Possibly this phenomenon may have been observed by others. In any case, the suggestion of using an invertible trough or tank was the most direct for obviating any such trouble arising from uneven action due to gravity effects. Another way of constantly turning the plates in the solution would be to have the rack which held the plates acting on pivots, so that by this means it could be partially revolved from time to time, the plates being kept from slipping in the grooves by some simple contrivance.

Correspondents frequently ask for information on the subject of markings consequent on stand development, and are apt to forget that a plate which is developed in a flat dish will, if left unrocked, frequently show markings of one kind or another due to uneven action. Regular mottling and irregular streaks are both seen from uneven action of the developer, doubtless arising from the difference in density of the original developing solution, and the same after reacting with the exposed silver bromide.

Some method of "stirring up" or agitating the developer in a trough seems thus very desirable, and no simpler method of carrying this out exists than a glass or ebonite stirrer, provided the trough will admit of its use. Unfortunately, most troughs are made to hold as many plates as possible in a small space, and the grooves are much too close together, except from the point of view of economy.

It is not a difficult matter for anyone with a mechanical turn of mind to adapt to a tank a small screw or propeller, which can be geared so as to be actuated by a small motor driven from an accumulator. This will keep the solution within the tank in constant motion, and it need not be driven sufficiently quickly to cause bubbles.

Another cause of markings is undoubtedly a dirty trough; too much emphasis cannot be laid upon the necessity of scrupulous cleanliness in the matter of stand developing apparatus. Grooves are veritable traps for dust, slime, and other dirt, which will possibly be freed on sliding fresh plates into them. The slime, etc., will then settle on the most important part of the film, and will naturally interfere with development. A test-tube brush is the best with which to clean grooves in a developing trough.

## NEWS AND NOTES.

THE program of the Twenty-fourth Annual Photographic Convention of the United Kingdom will interest many of our readers. It will be noticed that social gatherings, drives, and excursions fill up a large part of the program. Here it is. The convention is to be held at Canterbury, an hour's ride from London. Monday, July 5—Evening reunion, address by the President (H. Snowden Ward, F.R.P.S.), the annual general meeting. Tuesday, July 6—A driving tour through the villages of Bridge, Patrixbourne, Bekesbourne, Littlebourne, Wingham, Ickham, Wickambreux, Sturry, and Fordwich; evening, a lecture by F. Bennett-Goldney, F.S.A., on "Canterbury and its History." Wednesday, July 7—Official reception at the Cathedral; a garden party given by the Mayor; the annual dinner, followed by a smoking concert under the direction of the Committee of the Canterbury Chamber of Commerce. Thursday, July 8—Excursion to Rochester; evening, a paper by C. Welborne Piper, A.R.I.B.A., and a paper by C. H. Bothamley, F.C.S., F.R.P.S., on "Some Aspects of Photographic Record Work." Friday, July 9—Excursion to Rye and Winchelsea; evening, a paper on "High-power Telephotography," by Captain Owen Wheeler, and a lecture demonstration by F. Martin Duncan.

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A VERY great interest in the pictorial photography section of the Dresden International Exhibition has been taken among photographers all over the world. The number of entries already received is very great, and the pictures hung will be about as follows: Austria, 375; Italy, 150; Switzerland, 80; Balkan States, 40; France, 150; Great Britian (by invitation only), 150; Sweden, 50; Denmark, 50; Belgium, 100; Holand, 175; Russia, 150; United States, 300; Germany, 800; American Photo-Secession, 175; Royal photographs, 100. Besides these, collections of pictures from South Africa, Australia, and India will be entered, the number not yet being determined. Evidently the figures for the United States are not all in, for we understand there is to be an exhibition of work from this country other than the Photo-Secession exhibit mentioned above.

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THE first exhibition of color photography in Colorado was held in Denver, February 3, and a lecture illustrated by Autochrome slides given by Stanley McGinnis and Geo. F. Clifton was much enjoyed by an appreciative audience.

THE most important exhibition of international pictorial photography ever gathered together in this country was held in the rooms of the National Arts Club, New York, February 3 to 20, and attracted considerable attention. Every well-known worker, from D. O. Hill, whose negatives made in 1843 are not surpassed by anything since, down to Mrs. Fannie E. Coburn was represented by several prints—one gentleman on the hanging committee being represented by no less than eighteen prints.

This exhibition of photography is the second held under the auspices of the National Arts Club, the first being held just seven years ago in its galleries on Thirty-fourth Street. Since then pictorial photography has gained recognition both here and abroad, until today it is accepted, reluctantly perhaps, as a medium of individual expression.

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MR. RUSSELL DOUBLEDAY gave an interesting talk on Color Photography before the Chicago Camera Club on February 18.

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THE Peterboro Camera Club, of Peterboro, Ontario, Canada, has been organized and will be glad to get into communication with other organizations. N. A. Howard Moore, Secretary-Treasurer.

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THE Seventh International Congress of Applied Chemistry will be held in London from May 27 to June 2, 1909. The President of Honor is Sir Henry Roscoe, the active President Sir William Ramsay, Mr. Macnab is General Secretary, and Messrs. Thos. Tyrer and C. Whitman are Treasurers. Dr. Harvey W. Wiley, of Washington, D. C., has been appointed the Chairman of the American Committee.

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OWING to the great demand for the series of papers on "Composition in Portraiture," by Sidney Allan, in the 1908 volume of this Magazine, we have republished them in book form. Strongly bound in cloth and printed on fine tinted paper, it makes a handsome library book, and being the only book in the language on composition as applied to portraiture, it is a book that every professional photographer should have handy for reference on any doubtful question about posing.

## TRADE NOTES.

THE new Cooke Portrait Lens, series six, has rapidly earned for itself a place in the front rank of high class portrait lenses. It has a wonderful capacity for a wide range of subjects and can produce work as sharp or as soft as can be desired. It is three lenses in one, and produces equally good plates of either groups, large heads or figure studies. Photographers who use this lens are enthusiastic about it and praise it very highly. The lens works at F/5.6 and has an ingenious device for controlling diffusion, which can be operated from the rear of the camera. It comes in three sizes, 8 x 10, 10 x 12, and 11 x 24. If you are in the market it will pay you to get into correspondence with Taylor, Taylor & Hobson, Ltd., New York, the American sales agents.

"WHILE they last" is not a headline for a special sale, but is a quotation from a letter just received from The Eastman Kodak Co., Rochester, who inform us that they have a limited number on hand of the Kodak Portfolio and will forward copies to our readers on request while they last. The Portfolio is a collection of splendid reproductions of the prize winners and selected pictures of the 1908 competition. Photographers who are going to try in the 1909 competition will find many valuable and helpful suggestions in this portfolio.

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A CAMERA TOUR TO EUROPE.—If any of our readers contemplate visiting Europe this season, in connection with the Dresden International Photographic Exposition, we should like to call their attention to a most comprehensive tour that has been arranged by the Boston Travel Society, Boston, Mass. The trip as outlined will be under competent leadership, and includes pictorial centres of Holland, Germany (The Rhine), Austrian Tyrol, Italy (Italian Lakes), Switzerland, and France. Every possible opportunity will be given to members for photographing places and objects of interest, and, in fact, the itinerary mentions all the important things to see in the places visited. A large number of picture galleries and art museums are mentioned as part of the round of sight-seeing.

If anyone expects to go abroad this summer, it will be to his advantage to correspond at once with the Boston Travel Society, at 420 Boylston Street, Boston. As the party is now forming, it will be necessary to make arrangements *at once*. The number is limited, as well as select, and the party will soon be booked full.

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TALKING with a downtown dealer on the changing conditions in the photographic field, he remarked upon the steady decline in the demand for platinum paper; his sales for the month reached a very low ebb. The sales of development papers, however, showed very heavy increases, and would indicate that the many good makes of these papers are, by the ease with which beautiful prints are produced, increasing very materially the output of photographic prints.

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AMONG the new offerings which the Bausch & Lomb Optical Company, of Rochester, N. Y., make for the coming photographic season is a new compound shutter. This shutter is of the inter-lens type, is compact, durable, and fast. Moreover—and this is a distinctive feature—the shutter may be relied upon to work with reasonable accuracy at the indicated speeds. An iris diaphragm is used to stop down the lens, and steel segments form the shutter leaves of the star-shape opening, which gives even illumination to the margin of the plate from the moment the exposure is started. The shutter is offered for the first time with bulb and hose and with a locking device which absolutely prevents the shutter from working in any other way than that desired. For instance, when the locking device is set for a time exposure no other exposure can be made. The same is true for bulb and instantaneous exposures, the latter reaching one two-hundred-and-fiftieth of a second in the smaller sizes. The shutter is constructed of aluminum and steel, and consequently is light in weight. It may be used on any of the hand cameras. The finish is black. Those interested in the field of work in which this type of shutter is useful will do well to obtain complete information.

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SPEED PHOTOGRAPHY.—The photographer, whether amateur or professional, who does not attempt some line of speed photography is rapidly becoming the exception. For all there is some disappointment in store, and frequently something happens to produce features in the negative which were entirely unexpected and which are altogether unwelcome. The *Prism* for February is of particular value because of the interesting way in which the reasons for many failures are brought out, and because of the suggestions which are given to guide speed photographers toward success.

One of the things that may not have occurred to you is that one must be trained so that the muscles will respond instantly to the brain's command to push the button at the exact moment the image of the moving object occupies the space desired on the ground glass. The lack of this quick nervous reaction accounts for the misplaced object on the plate and is the reason for missing it altogether, as is the experience with many beginners.

Many other points of interest are taken up; the illustrations given are worthy examples of unusually good speed work so that, taken all in all, this issue of the magazine should be appreciated by the photographer generally. The February *Prism* may be had upon request without cost from your dealer, or it will be sent to you by the Bausch & Lomb Optical Co., Rochester, N.Y.

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CHAS. COOPER & CO., of 194 Worth Street, New York, one of the oldest and most reliable chemical houses in the country, issue a monthly price list of chemicals that should find its way into every photographic studio. It will be sent for the asking, and the photographer who watches the prices of chemicals will find that he can save money.

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THE BERLIN ANILINE CO.'S new book, *Agfa Blitzlicht in the Home*, is one of the most helpful books on home portraiture by the aid of flash-light yet published. Many examples are given accompanied by diagrams showing how the effects were obtained. It will not cost you anything, but will give you a lot of valuable information. Address the Berlin Aniline Co., 213 Water St., New York.

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THIS is the photographic post card season. Read Mr. Jerome's article in this issue, and then try some of the Kruxo post cards, made by the Kilborn Photo Paper Co., of Cedar Rapids, Iowa. They give splendid results and make quick sellers.

# WILSON'S PHOTOGRAPHIC MAGAZINE

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## EDITOR'S TABLE.

WE regret to have to announce the death of Henry Bausch, second vice-president of the Bausch & Lomb Optical Co., on March 2. Mr. Bausch was born in Rochester fifty years ago, and was the third son of Mr. and Mrs. J. J. Bausch. He attended the grammar and high schools of this city, and completed his studies at Cornell University. In 1875 he entered the Bausch & Lomb factory, beginning his business career by working at the bench, so learning the business from the ground up. His special interest was in the microscopic and scientific department, and to that branch of the business he devoted most of his life. His college training had made him specially adapted to this work.

He was a stanch Republican, and took a lively interest in municipal affairs. For several years he was a member of the Park Board. He also took an active part in charitable and philanthropic work, and was a member of the board of directors of the Infants' Summer Hospital in Charlotte.

He leaves a wife, Henrietta Schubert Bausch, and a daughter, Miss Elsa Bausch.

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*Studio Light and the Aristo Eagle* is the new and more comprehensive title under which our old friend *The Aristo Eagle* has been reissued in a new size and cover. It is the object of the publishers to broaden the scope of the magazine and to make it more helpful to the photographer in his everyday work. It will cover the entire professional field, hence the broader title. Professional photographers should not fail to be on its mailing list. Eastman Kodak Co., Rochester, N. Y., publishers.

*The Photo-Miniature* number 95 is devoted to essentials in portraiture, a simply written account of the making of a good portrait, with sixty-four illustrations showing what to do and what to avoid. Tennant & Ward, New York, publishers; 25 cents.

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IT is not too early to begin making your arrangements to attend the National Convention at Rochester, N.Y., July 19 to 24. Great preparations are being made for a record convention. You cannot afford to miss it, regardless of the distance you must travel to get there.

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PROFESSIONAL PHOTOGRAPHERS' CLUB OF NEW YORK.—The third annual banquet of this popular and progressive professional club was held at Atlantic Gardens, New York, on the evening of March 18, and was a most enjoyable and successful affair. Some seventy members of the club and the following invited guests sat down to an unusually good dinner. The guests of the evening were A. F. Bradley, E. B. Core, S. H. Lifshey, Pirie MacDonald, and J. L. Foley, of New York; E. Goldensky, of Philadelphia, and the editors of *Abel's Photographic Weekly* and WILSON'S PHOTOGRAPHIC MAGAZINE. Mr. J. C. Abel made a most efficient toastmaster. During the evening Mr. I. Buxbaum, on behalf of the club, presented W. B. Stage with a handsome silver coffee service, as the club's appreciation of his good work on its behalf. A most enjoyable evening was spent by all present.

By O. H. Boyé, San Francisco, Cal.

# WILSON'S PHOTOGRAPHIC MAGAZINE

FOUNDED IN 1864 BY EDWARD L. WILSON

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## ON APPEARANCES.

THE intrinsic value of a photographic portrait is necessarily small. The price the photographer gets for his work is a compromise between what he thinks it is worth and what the sitter is prepared to pay. Its value is not determined by the quality of the lens the picture was made with, or the plate it was made upon, or the medium in which it is printed. The biggest factor in determining the price question is the personal equation. The photographer himself very often decides the prices of his work by his manner and methods.

The price of a luxury cannot be determined and fixed like butter and eggs. The price of the photograph is fixed by the sitter's willingness to pay what the photographer thinks it is worth. The sitter is willing to pay according to the way he has been impressed by your work, your methods, your style, etc.

The photographer impresses his sitter or would-be sitter by various methods; the location and character of his studio, his assistants, his advertising, his stationery, the show case, the display of prints showing sizes and styles, and the general appearance of his finished work and style of delivery.

In our mail we recently received a letter and package of photographs from one of our subscribers in Scotland; we do not mention the town because it is so small and unimportant that you would not find it on the map, but the letter and the package were both good examples of the best methods of studio correspondence and delivery. The letter was neatly typewritten on a full sized sheet of good crash-finished linen paper with a carefully printed heading. The whole effect was dignified, and created an impression that there must be a good studio and a capable man behind it. The photographs were received in perfect condition, having been protected by sufficient cardboard; the address was clearly typewritten on a well-designed label.

These are mere details that some photographers do not give any attention to, thinking that they do not count. But in photography all the details count. You cannot expect your customers to pay high prices for work that bears the stamp of slovenly indifference. We have seen work turned out of a studio enjoying a fair reputation, that was both badly trimmed and badly mounted. When we drew the proprietor's attention to it, his only remark was, "Those people don't mind."

Another point about the package from the little Scottish town was that the prints had all been carefully mounted by a dry mounting machine; the consequence was they were beautifully flat and did not have to be put under the big dictionary to take the curl out. Many photographers hesitate about putting in a dry mounting press because of the initial expense; they cannot see that it is money into their pockets to deliver their work in the best possible manner.

It pays the photographer to spend money on "appearances," to use the best grades of stationery, and to see that all business letters going out of his studio are dignified both in language and appearance.

It pays to use the best grades of printing, mounting, and cover papers—it even pays well to use good wrapping paper and labels. Everything that bears your name is an advertisement, and care should be taken to see that it helps to create a favorable impression of your studio and your work.

It pays well to use the latest and most up-to-date equipment in your work room. It pays to adopt any plan that will improve the quality of your output. Good work well done always has and always will bring its own reward.

## STUDIO BLINDS.

THE following article is suggested from the number of inquiries on controlling the light. The writer will try to give some suggestions that may be helpful to photographers of limited experience. It will be clear, of course, that no particular set of rules can be laid down for every studio, no two studios being exactly alike. General rules can be modified to particular cases.

One of the most frequent queries seems to be with reference to stopping out the sun. There are some studios so situated that the sun gives but little trouble at any time. For example, we may have one that runs north and south, and the south end abuts on a high building. Here the sun will give but little trouble at any time of the year. A plan that fulfilled this desirable condition was at one time in vogue: it was to have a large sail fitted outside the southern end or side of the studio, which could be hauled up or let down at pleasure. Another method is to have a permanent wooden hoarding, painted black, outside, which prevents the direct rays of the sun from reaching the studio. Both these contrivances are very efficacious, but they are a little costly, as they must be substantially fixed to resist strong winds. They are also somewhat unsightly when seen from the outside. Should the sun cause trouble only during two or three months of the year it may usually be overcome by fitting inside, temporarily, a curtain of dark color, say black, over that portion of the roof upon which it shines, and which can be readily removed when it has moved off. In some circumstances this might possibly entail stopping out light which it is desirable to utilize. In that case the glass may be stippled over with flour paste, with which some common whiting has been mixed. This will stop out the glare of the sun while yet admitting light, and can be easily cleaned off at the end of the summer.

### *Obscuring the Studio Light.*

Another good plan of subduing direct sunlight is to cover that portion of the

roof glass upon which it shines, either with tissue paper, or, better still, architect's tracing linen. This can be strained on light wooden frames, which may be made to slide backward or forward, or be removed altogether, when the sun ceases to be troublesome. Or the tracing linen may be fitted as a blind on a spring roller, to be drawn down or let up as desired. Tracing linen, which is by no means expensive, may be had from any of the dealers in artist's materials. It stops off but little light, while it quite subdues strong sunlight. Should the aspect of a studio, lighted from one side only, be such that the sun when shining is on it, more or less, all the year round, it is a good plan to have it glazed with ground glass when it is built. Ground glass when clean stops off but little light, but in large or smoky towns it is prone to get dirty; it then shuts out a considerable amount of actinic light, but soap and water will quickly remedy this defect.

### *The Color of Blinds.*

A query one frequently sees has reference to what color the blinds or curtains should be, and how they should be arranged. As a matter of fact, the color *per se* is quite immaterial so long as the material is sufficiently thick or opaque to arrest the light and enable the sitter to be lighted so as to obtain proper chiaroscura. But the comfort of the sitter is a consideration. A glaring light, such as would be caused by white blinds, would be trying to the eyes, and for that reason is not conducive to a natural expression. Blue or green both yield a soft and quiet light that is very pleasant to the eyes, and therefore very suitable. Buff might be used, but, on the whole, the writer much prefers either one or other of the first-named colors. Black might be used in studios where the light is very strong, say, one with a south aspect, but it gives the studio a sombre and somewhat funereal appearance, which is likely to have a depressing effect upon a sitter. With a south-lighted studio, blinds or curtains of thick material, either dark blue or green, are far preferable to black, as they will effectually produce all the shadow that may ever be required.

For the roof either blinds or curtains may be employed. If the former, they are more convenient to use if they are on spring rollers, fitted quite close to the ridge of the studio, so that they can be drawn down or let up as required. If curtains are used, they are best fitted to run horizontally on wires, and in sections which overlap each other. The fabric should be a soft material, such as thin serge, with small brass rings sewed at short intervals along the edges. These are threaded on wires, running from end to end of the studio. The curtains should hang rather full, and, as just said, overlap one another, the laps being upward, so that no light passes downward between them. Should the roof of the studio be large, it is well to have the curtains in four sections; if small, three will suffice. The curtains are manipulated by simply pushing them to or fro with a light bamboo rod. In some studios where the sun gives trouble two sets of these curtains are fitted, the one next the glass white, and the other of a dark color. With this arrangement the light is under perfect control in every way. The wires must be strained tight and kept taut, otherwise the curtains will not run freely. The wires may be kept taut in the same way as they are in wire fencing, and screw fittings for the purpose may be had at any hardware store. For the wires iron should be avoided, as it rusts so quickly, and then the rings will not pass freely, and, moreover, if water should happen to get through the

roof, the iron rust would stain the curtains. Stout copper wire is the best for the purpose.

*Side Studio Curtains.*

For the sides of the studio either blinds or curtains may be used, but it is desirable that they be capable of regulation alike from the top and bottom. Therefore they should be in two parts—one on spring rollers fixed a little below the skirting, so as to be drawn up, and the others on rollers near the eaves to pull down; in this way the side light is brought under complete control. Spring blinds are a little costly, but every purpose is served by having curtains in two parts, running on rods or wires; the lower portion reaching from a little below the skirting to about the middle of the side, and the upper ones from the eaves to somewhat below the top of the lower ones. If the side curtains are in one piece they can, to an extent, be stretched somewhat diagonally; but, on the whole, it is best to have them divided into two portions, particularly if the side is high, as then the light is under more complete control. The material for the side blinds may be similar to that of the roof ones. Two sets may be fitted—the one white and the other dark—but this is rarely necessary, except where the sun is on the studio for a good part of the day. With a direct south aspect two sets are certainly very desirable.

## THE AWARD OF THE R. P. S. PROGRESS MEDAL TO MM. LUMIÈRE.

THE Progress Medal of the Royal Photographic Society has this year been awarded to MM. A. Lumière et ses Fils, of Lyons, on the ground (according to the words of the minute): "For the Autochrome process of color photography and for their photochemical researches." The award, which was instituted in 1878, was granted for "important advance in the scientific or artistic development of photography," and in the former category the contributions of MM. Lumière run to such a number and touch such a diversity of photographic questions that there can be no question of the propriety of the bestowal of the medal upon the three joint directors of the famous manufactory at Lyons. For the past twenty-two years MM. Lumière have devoted their own time, that of their assistants, and the cost of a laboratory to the investigation of questions which as often as not were not directly of importance to them in their business of the manufacture of photographic products. In some cases the results of their experiments have led to the protection of the product obtained by patent; in others the subjects and results of the research have been just as applicable to one maker's goods as to another's; in others, again, the results have been negative, the record of an experiment that failed; but in every instance the results have been offered freely and frankly to the world, have been translated into the language of every fortunate country which possesses a photographic press, and in not a few instances have provided photographers with new and improved methods of work. A glance down the list of the 132 papers which have thus been pubished since the year 1887 shows not only the mental activity of the authors, though even this total does not include papers on pharmaceutical and medicinal subjects, in the preparation of which MM. Lumière have collaborated with others. Color photography figures

in this list as early as 1893 in the form of a paper on the Lippmann Process, which was followed by others on the three-color method contemporaneously with the progress made by the Lumières in working out the methods of trichromy on paper, which, in spite of the somewhat difficult manipulation involved, produced extremely beautiful results, and afterward underwent further simplification in the so-called L. N. A. Process. However, MM. Lumière, like other people working at color photography, recognized that methods of triple superimposition could never become widely popular, and hence the Autochrome plate, for the remarkable perfection of which the skill, patience, and perseverance chiefly of the two brothers, August and Louis, are responsible. One admires the "niceness" of the principle of the Autochrome; but if MM. Lumière were at liberty to tell all they have gone through, the award of merit to them would be for their laborious triumphs over details of manufacture. However, the impression should not be created that color photography alone has monopolized the attention of the Lumière laboratory. Its work has included the production of new developers, the preservation of developing solutions, the toning and fixation of prints, and even such minutiæ of practice as the washing of prints and the silvering of mirrors.

We should not forget, also, in this appreciation, the contribution of MM. Lumière to cinematography. In the eighties and nineties of the past century a great many designs of cinematograph machine were worked out, and many, no doubt, were used in an experimental way, notably that of Demeny, which has developed into the present type of machine, but the first public demonstration of animated photography which was a popular success was that given by MM. Lumière in Paris, in July, 1895, with the "Cinematographe" of their own design and construction. From that date cinematography as an industry was an established fact, and now MM. Lumière, like the fairy godmother in the story books, have once more appeared on the scene with their non-flammable film, by aid of which the animated photograph entertainment should be robbed of its regrettable dangerous character.

Apart from the industrial progress which their experimental work has promoted—a form of progress, we would say, which was quite worthy of recognition—the papers by MM. Lumière alone, and in collaboration with M. Seyewetz, have treated many photographic problems in a scientific way, and have led to a more scientific basis for much of the current photographic practice, and therefore the recognition now embodied in the "Progress" Medal of the Royal Photographic Society will be endorsed by photographers in general.—*British Journal of Photography.*

## NOTES ON CARBON PRINTING.

CARBON printing has the initial drawback that two transfers are necessary if we want a print "the right way round." But this drawback disappears if we make film negatives, as then it is quite an easy matter to print from the reverse side of the film, and the slight diffusion which results from the thickness of the celluloid being between negative and tissue will do nothing but enchance the beauty and softness of the results.

It is usually given as a maxim that soft negatives are required for the carbon process, and in hand camera work soft negatives are not always easy to obtain, as exposures have to be some-

what short. But until one tries, one can have no idea to what extent the gradation in the print can be controlled by varying the composition of the bath used for sensitizing the tissue.

Buying tissue ready sensitized is a very great mistake, for the following pungent reasons:

1. Each day the tissue gets older, and each day the gelatine becomes more insoluble. Each day, in consequence, the gradation it is possible to obtain for a given negative varies, as gradation is directly associated with solubility of the film.

2. If tissue be bought ready sensitized, and used almost at once, then the character of the gradation, for a given class of negative, will be necessarily the same.

Personal control is what every amateur is aiming at nowadays, and it is the way to get this controlling element that the home sensitizing of the tissue opens.

Where a negative of good gradation and the most desirable qualities is to be used, one can hardly do better than use the bath suggested some time back by H. W. Bennett. This is made up as follows:

| | |
|---|---|
| Potassium bichromate | 4 drams. |
| Citric acid | 1 dram. |
| Strong ammonia | about 3 drams. |
| Water | 25 ounces. |

The potassium bichromate and citric acid should be allowed to dissolve in hot water, and the liquid allowed to get fairly cool. Then just sufficient ammonia should be added to the solution to turn it a distinct lemon-yellow color.

Next, we come to the bath which enables us to modify the character of the print. This is in reality a very simple matter, and merely a stock solution as follows is required:

| | |
|---|---|
| Potassium bichromate | 1 ounce. |
| Water | 10 ounces. |

If we are going to deal with harsh negatives, or require soft gradation, we must use one part of the stock solution with one and one-half parts of water, and neutralize with ammonia. If contrast is wanted, or the negative is soft, then double the amount of water must be used.

Lastly, we come to the method of controlling the appearance of the result by the choice of a final support, or first support if film negatives are being employed.

If the final supports are prepared at home, there is, of course, no limit whatever to the selection of surface, and either rough or smooth papers, white, cream, gray, and so forth, can be chosen at will.

One of the best methods of preparing the paper to receive the final image is as follows: Dissolve 45 grains of gelatine of some soft kind (such as Nelson's No. 1) in ½ oz. of glacial acetic acid, with the aid of gentle heat if necessary. In another ½ oz. of water dissolve 10 grains of chrome alum. Then make up this mixture:

| | |
|---|---|
| Wood alcohol | 10 ounces. |
| Distilled water | 4 ounces. |
| Acid gelatine solution | ½ ounce. |
| Alum solution | 100 minims. |

This mixture can be painted over the paper with a wide mop brush, and should be as evenly applied as possible, and fairly liberally. It will dry fairly quickly.

A simpler method is to apply the following to the paper, floating the latter upon it for about three minutes, and then hanging it up to dry:

| | |
|---|---|
| Nelson's gelatine | 120 grains. |
| Water | 6 ounces. |

Dissolve with the aid of heat, and then add 10 grains of chrome alum dissolved in an ounce of water.

## VELVET DOLLARS.

A writer in the *Aristo Eagle* gives some advice for which he does not claim originality. It is well worth repeating, however, and well worth trying:

Now we are going to suggest a plan—not a new one—but one that should not only cover the losses due to re-sittings and the like, but bring in some nice dollars that are all "velvet" as well.

Whenever a customer seems well pleased with the proofs and has entered his order, enter an order for an enlargement from the best negative, on speculation. Then when he comes in for the finished prints show him the enlargement mounted up in good shape, and explain that you were so much pleased with that particular negative, you felt sure he had someone he would like to present with an extra fine copy. Tell him at once the extra cost for the enlargement, but don't urge him to purchase. Tell him if he doesn't want it, you will be only too glad if he will allow you to use it as an exhibition print in your studio. Ten chances to one that nice big print will haunt him if he goes away without it and in a day or so he will be back for it, and perhaps order one or two more.

You have thought of this plan before, but have never got around to trying it out. Well, let us figure a bit and see just how much of a proposition it is.

A sheet of 11 x 14 Nepera paper, which is simply great for enlargements from portrait negatives, costs twelve and a fraction cents, and the cost of developer, and time for making and finishing the enlargement, say, at the outside, twenty-five cents more, and, to put an outside figure, say the enlargement complete stands you fifty cents. It should be an easy matter to sell it for from anywhere from one-fifty to two-fifty, which leaves a margin of profit well worth while.

Enlarging does not demand a lot of complex and expensive apparatus; a view box can be rigged up easily for the work—and in this connection we understand that the Eastman Kodak Company have about ready for delivery a new booklet on enlarging for the professional.

Think over this plan and send in your name for a copy of the new booklet as soon as ready. It will be sent you without charge.

## THE SANGER-SHEPHERD IMBIBITION PROCESS.

THE following outline of the new Sanger-Shepherd Imbibition Process is taken from the *Journal of the Photo Society*, of Philadelphia. Some of the prints made by this new process were exhibited at the recent exhibition of the Royal Photographic Society and created quite a favorable impression.

The three-color record negatives are all taken upon one brand of plate, the Sanger-Shepherd Color Plate, and can be made in any ordinary camera fitted with a mount to slip on the front of the lens, and provided with a set of Sanger-Shepherd Color Filters, using the ordinary dark slides to hold the three plates, or preferably with the new repeating back, where all three negatives are taken on one plate with the ease of monochrome.

The exposures through the color filters will, naturally, be found a little

longer than for ordinary photography. For instance, with a lens working at F/8 in a good light, the red filter would require about one second, the green one second, and the blue-violet one second exposure, with our rapid series of color plates.

The plates are developed in the usual way, preferably with metol, and well covered to exclude light. The negatives must be clear and soft, full of detail and gradation; the first exposure should always include some white object, which, if the ratio of exposure is correct, will be represented by identical densities in all three negatives.

*Printing the Positives.* It is preferable to make the greenish blue print by making a black lantern slide from the red filter negative and converting the black silver image into a transparent greenish blue image, by treatment with the greenish blue converting solution and the pink and yellow prints upon a strip of film printed and developed together.

*The Special Film.* The positives from the green and blue-violet filter negatives are printed upon a special celluloid film, coated with gelatine containing bromide of silver, sensitized by immersion in the sensitizing bath for three minutes, and dried in the dark room. The film is supplied sensitized ready for use.

The prints are made upon the film by printing through the celluloid, the celluloid side being placed in contact with the film side of the negative and exposed to the daylight until, on examination in weak light, all the details are visible on the film as a brownish yellow print, very similar in appearance to an undeveloped platinotype print. The printed film is immersed in warm water, and in a few minutes the unaltered gelatine dissolves away, leaving a perfect white image full of detail attached to the celluloid base. The print is next fixed in ordinary clean hyposulphite of soda solution until the white bromide of silver dissolves, leaving a transparent, low relief in clear gelatine, and is then washed in water for ten minutes, the prints then being ready for staining.

*Staining the Film.* The dye solutions are supplied in concentrated form, and to make the staining baths merely require diluting with four or five times their bulk in water. The print from the green filter negative is stained up in the pink bath, and the print from the blue-violet filter negative is stained up in the yellow bath—the staining being stopped as soon as the two prints, when held over the greenish blue positive, give neutral tints in the gray shadows of the picture. Should one of the positives be accidentally overstained, it may easily be reduced by merely soaking in clean water.

*Mounting the Positives.* After drying, the films are mounted in superposition on the blue print slide and secured in position by binding strips, a mask and cover glass applied in usual manner completing the picture. Lantern slides are, however, much improved in brilliancy if the separate films are mounted in optical contact with Canada balsam.

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*Failures.* When a plate on coming out of the hypo bath is clearly a failure, and past all hope of improvement, it is better to put it to soak in water until it can have its film removed with hot water and a scrubbing brush than to cast it on one side for the hypo to dry on it and turn to dust in the dark room, and the film to harden. Clean glass is always useful, but spoilt negatives, with the films dry, take a lot of cleaning. Moreover, it is much easier to clean the glass when it comes wet from the hypo than at any later stage, even if it has been well soaked beforehand.

## CARBON PRINTING.

As pointed out by Mr. Basil Schon in the *Photo News*, the literature on carbon printing makes many a would-be carbon worker put off making prints that he would like to make because of seeming difficulties. The following article demonstrates its simplicity.

Carbon is popularly supposed to be a difficult process; the reason for this is because people write learned books and articles on the subject. This is not one. When I first thought about taking it up I made the mistake of reading a book about it—an excellent and somewhat large one. I then decided to postpone the event for about two years. Now, if I had got somebody to spend about half an hour showing me the process, it would have been all right and I could have gone straight ahead.

The following account is a description of the plan I adopt in general practice, or, for the matter of that, when showing people. To start with, you want a negative; this should have rather more contrast than is desirable with most other processes; at the same time, the high lights, that is, the densest parts, should not be so dense that you cannot readily distinguish the outline of the bar of a window against the sky when looking through it. The said negative has to be what is called "safe edged," that is, fitted with an opaque border that will not let the light pass through when printing; this can consist of strips of brown paper, lantern-slide binding, or black varnish, and can be on either side of the negative, or on a separate piece of plain glass; the advantage of the latter method is that only one does for any number of negatives; also the double thickness of glass in the printing frame insures good contact.

### *Materials.*

I consider it very desirable to use ready sensitive tissue and single transfer paper; as the tissue does not keep well when sensitive, it should be bought in small quantities at a time, the best plan being to get it direct from the makers by post.

As is well known, it can be obtained in a variety of colors, many of which are very awful; sepia or engraving black are safe ones for general use, others being reserved for special effects only.

A good deal of time and ink has been spent in discussing the speed at which carbon prints, for, except in the case of very light colors, there is no apparent difference between a printed and an unprinted piece of tissue, so that some other means of gauging the exposure is necessary; there are many dodges for doing this, and various sorts of machines, called "actinometers" or "print meters." In my opinion the most satisfactory and cheapest plan, in the long run, is to buy a large and expenisve meter to start with; as it is large, it is not easily lost or mislaid; as it is relatively expensive, it is treated with respect.

### *Printing.*

To start with, you will have to find the correct exposure for your first negative experimentally; one way of doing this is to put a piece of P.O.P. under the negative and a series of small strips in the meter. When the P.O.P. looks nice (if it ever does!) see which number in the meter is just printed. Then try a carbon print, using the number you have found. Supposing that this is not quite successful—you must not be disappointed if you spoil one or two to start with, but be comforted by the fact

that when you have once found the right number, you have done it once for all—a note should be made of it, preferably on the negative itself. When you know what exposure is wanted for a few negatives, you can generally tell what it will be for a new one by merely comparing them.

Well, returning to the treatment of our print, before beginning to expose any tissue the transfer paper should be marked on the back in pencil to prevent mistakes being made when transferring. When the paper is dry there is usually no difficulty in distinguishing between the two sides, the concave being the coated side and generally somewhat shiny compared with the other. As many pieces as you propose doing prints should be put to soak in cold water, or in warm water in the case of rough papers.

When your tissue is printed it should be plunged into somewhat deep cold water; the ordinary lavatory basin, fitted with hot and cold taps is very suitable for prints up to whole plate; above that size I generally use the domestic bath. On putting in the tissue you will notice that it curls up tightly at first, and then begins to uncurl; as soon as the latter process begins the two "business" sides of the transfer paper and tissue must be brought together *under water*, and removed as one piece. It is then convenient to place them *flat* upon blotting paper, and squeegee them well into contact. I use a roller squeegee; I believe it is not usually recommended, but it works all right in practice—with care, of course. You have to realize that the two pieces of paper have to be brought into close contact, and that bubbles and creases *must* be avoided.

### *Developing the Print.*

In the case of small prints the edge of an old negative can be used as a scraper. In a minute or two it is sufficient to place the print between blotting paper, under pressure, such as can be obtained by the use of several weighty tomes. If such a thing as an office press is available, so much the better, but you can do perfectly well without it. You should leave the print not less than about twenty minutes nor more than an hour; at the end of that time you will find that the two have firmly adhered together, and the yellow stain of the bichromate, with which the tissue is sensitized, should be showing at the back of the transfer paper; they are then placed in hot water, about the temperature at which you can comfortably keep your hands in; if the water is too cold you will not be able to separate the two pieces properly. Supposing everything is all right, in two or three minutes you will see that the pigment begins to come out from between the two sheets, and you will find that you can peel one piece from the other; this should be done with a slow steady motion, *keeping both under water.* Throw away the piece that was originally in the printing frame and devote your attention to the other, which probably looks a hideous, blotchy mess. The method of treatment is either to leave it floating face down on the surface of the water, taking care that there are no bubbles under it, and inspecting it every few minutes, or else it can be floated face up and have warm water gently poured over it. A second method is rather quicker, and allows a slight amount of control—*i. e.*, a part can be lightened by pouring on more and warmer water, or kept dark by neglecting it. So far as my experience goes, not very much can be done in this direction.

Over- and underprinting can to some extent be counterbalanced by the use of hotter or colder water. Prints are liable to be blistered by the use of water that is too hot. Prints should be

washed down rather lighter than they are intended to be, if any allowance is made at all. The increase in darkness on drying is most marked in the case of very light prints.

When you have washed all that you think necessary from the print, it should be transferred to cold water for a short time to get rid of remaining traces of bichromate; this can also be done by treating it with an alum bath, as all the manufacturers tell you. In practice it is not essential, but you will be on the safe side in adopting it. If the alum bath is used, the print must be washed for a short time afterward. It is then dried in the same manner as any other photographic print.

It only remains for me to suggest that, having read this, you really give the process a trial, it is quite easy; in the words of the classic phrase, "Do it now."

## TO MARKET PHOTOGRAPHS.

THE following pithy paragraphs from the *Artura Bulletin* contain an unusual amount of common sense. It will pay the professional photographer to read them carefully and follow them out.

The photographer's best advertisement is the quality of his work. The street case tells this story. The street case, however, doesn't go into the homes of the people. Finished orders do, but they do not appeal directly for new business.

To get to the people who may buy photographs, a strong selling argument which will appeal directly should be used if they are to be stirred into action.

This can only be done by advertising and informing the people what you have to sell.

Invite inspection and comparison of your work with other work. Here is where the quality of your sample case display and the quality of the orders you have already delivered count. If your work is good, everybody having seen it will remember it as such.

It is true that the public is not wholly capable of judging photographs, but fortunately the majority will favor and appreciate good, high grade, clean work.

Now, granting that your work is good, and of a quality that will bear inspection, you must not be contented with orders, re-orders, and the new business that they will bring.

You should let every man and woman in the community know that you are making good work by advertising.

There are many different ideas in regard to advertising photographs and the medium to be used.

The ticket scheme originally was good, but it has been so abused by unreliable agents that both the photographer and the prospective customer have no confidence in this method.

Circulars distributed from house to house may bring a customer here and there, but this method has been overworked and circulars have in most localities become a nuisance.

The housewife has found her doorstep filled with advertising of this kind for so long that it has become a part of her duties to clean them up daily. They are usually put in the waste paper receptacle without receiving any attention.

An advertisement in a newspaper will be sure to find its way to a reader, as the news is always eagerly sought and the advertisement gets into the home with the news.

An evening paper of the largest circulation will bring the best results, as a rule. This reaches the family and is read at a time when the work for the day is done.

There have been many arguments used against newspaper advertising as being unprofessional, but this stand is not logical.

Merchants are selling their goods by advertising them, and you will find that the most successful are advertisers, and that their success is due to advertising.

They are getting their share of the loose money in their vicinity.

If a photographer is to get his share he must compete with them in every sense of the word.

Advertise judiciously and *continuously* and through a medium that will reach the greatest number of readers.

Misplaced advertising is a bad investment, but well-placed advertising is a source of revenue and should not be considered an expense.

## SOME HINTS ABOUT STOPPERS AND CORKS.

STOPPERS that stick should first be attacked in this way: The bottle is wrapped up in a cloth, with the neck out and held firmly on the table while the neck is tapped all around with a piece of wood—a nail brush or the back of a squeegee. If this loosens it, the sound will signify when this takes place. If it does not loosen it, the bottle may be held horizontally, and a little stream of hot water allowed to flow on the neck for a few seconds. The tapping should then be resumed. By alternate hot water and tapping the most obstinate stopper can be removed.

The alkalies and alkaline carbonates —caustic potash, caustic soda, sodium carbonate, and potassium carbonate— should never be kept in stoppered bottles, as they attack the glass and make the stoppers fast very soon. They should be kept in a bottle with a plain cork.

Stoppers are generally ground into the particular bottle they fit. In washing out stoppered bottles, therefore, the stoppers should not be mixed, or bad fits will result in most of them. A stopper should on no account be put away in a bottle while the bottle or its contents are warm, or it will be sure to stick. In drawing corks, the corkscrew should not be passed right through the cork if it is intended to replace this, but should be just short of complete penetration.

Sodium sulphite, sodium carbonate, ammonium sulphocyanide, and other substances which spoil on exposure to the air are best kept in corked bottles the tops of which have been sealed by pouring melted paraffin wax over them. A candle does very well for this purpose. To seal a wide-mouth bottle effectively, the cork should be pushed in until an eighth of an inch below the top of the bottle, and the space so enclosed should be filled in with melted wax.

A loop of string passed round corks that often have to be taken out saves using a corkscrew every time, and the cork lasts much longer in consequence.

A stopper which resists all other methods, if of suitable shape, can sometimes be dragged out. To do this, a piece of string about a yard long is folded in half and a knot tied about six inches from the fold, so as to make a loop. The two ends are then passed round the base of the stopper, so as to pull the knot tight up to it, and are then securely tied. The loose ends are then again tied so as to make a second loop the same length as the first. These two loops then form handles, one each side of the stopper, by which it can be easily pulled away from the bottle, tapping it the while.

## TANK TIPS.

THE professional charged with the successful conducting of a studio is a pretty busy man; his mind often has to be occupied with half a dozen things at once, so it is not to be wondered at if he has an occasional little slip up on some product that he is not entirely familiar with.

This is exemplified in the experience of demonstrators who once in a while find a man having some little difficulty in successfully handling the new Eastman Plate Tank. In every instance the solution of the difficulty has been easy, as evidenced from the following extracts from demonstrators' reports:

"Have come across several tank users in the past month who have complained about their tanks leaking when reversed. I found the cause for this in each case, and thought you might be interested in knowing the remedies which I discovered.

"As a rule, all that is necessary to do is to turn the sealing band over in the lid. In every case of leakage the photographer should look to it that the edges of the tank have not been sprung in anyway. It is obvious that they must press into the rubber evenly all the way around.

"I caution every one who uses the tank to be particular and always put the lid on the tank so the word 'Tank' is on the same side as the dial on cup. By putting the lid on the same way each time the edge of the cup will always fit in a groove in the rubber sealing band and not be liable to leak.

"As you probably know, quite a number of the photographers fix their negatives in the tank instead of using a separate vessel. No bad results come from this practice if the photographer is reasonably careful to rinse the tank and plate cage thoroughly after the fixing; but if this is not done, especially after using an acid fixing bath, the acid will act on the metal and eat holes in it.

"I came across a case of this kind yesterday in A. Mr. R. has been using the Eastman tank for all of his developing for the past four months, and he also has been fixing his negatives in the tank. When I called he was very much provoked because there were holes eaten in his plate cage. He seemed to think a tank made of metal was not practical and wanted us to either replace the tank or have his dealer give him credit for it. I asked to see the tank he had been using, and found traces of fixing solution crystallized on the cage. Mr. R. said he always rinsed the cage once after fixing and then put it back in the cup until he had occasion to use it again. I told him this was the cause of his trouble. He should rinse the cage and cup several times after using and then hang up the cage to dry and leave the cup to dry upside down.

"Yesterday I called on Mr. B., of S., who has been using the Eastman tank for developing his plates. He has had a little trouble lately with yellow edges on his negatives, and had come to the conclusion it was due to the action of the developing solution on the metal.

"I had him develop a batch of negatives to see how he handled his plates. He used pyro in accordance with formula given in direction book, and did everything properly except the rinsing and the handling of his negatives after rinsing and before fixing. After his plates were developed he poured the developer off and filled the tank with water; then lifted the cage out of the tank and lesiurely took the negatives out of the cage one at a time, and placed them in the fixing solution.

"His whole trouble came from not rinsing the negatives thoroughly and not

transferring them quickly enough to the fixing solution. The one rinsing did not remove the developer and it started to oxidize on the edges of the negative before he got them all transferred.

"This past summer, in the territory which I have been covering, water was so scarce the photographer in some of the smaller towns had difficulty in getting sufficient water to wash his negatives.

"As necessity is the mother of invention, I found several who hit on the plan of washing negatives in the developing tank. After fixing they would put the plates into the tank and fill it with water, clamp on the cover and shake the tank; and repeat this operation three or four times. This would only require a small amount of water, and it washed the plates as thoroughly as half an hour in running water."—*Aristo Eagle.*

## NON-ABRASION DEVELOPER FOR GASLIGHT PAPERS.

RECENTLY, in one of the photographic magazines, there appeared a formula, which was given as the regular Velox formula for making glossy gaslight prints without abrasion marks. It recommended the addition of ten grains of potassium iodide to every fluidounce of developer. Upon trial, the formula was found to differ widely, in the results obtained, from the regular Velox N. A. developer. Paper printed the usual length of time, with the same light, negative, and under exactly the same conditions that were used with the Velox N. A. developer, was found to develop very slowly and with a sickly yellow tinge. The final result, after fixing, showed an apparently much undertimed print with a rather rusty tone. Thereupon a series of experiments was begun, with the object of finding a developer which gave the same results chemically and pictorially as the ready-mixed developers that cost 50 cents per 4-ounce bottle.

### *A Color Test for Exhausted Fixer.*

The desired end was soon reached, and the formula that is given in this article will be found to possess all the good qualities claimed for any developer now on the market. It entirely prevents abrasion marks, improves the tone of the finished print; but what is perhaps best of all, it furnishes the printer with unmistakable evidence of the complete fixation of the print. When the print comes up in the developer it assumes a canary-yellow color, which in no way affects the density of the print. The print is developed to exactly the same apparent density as is done when ordinary developer is used. The yellow color, not having any appreciable effect on the print's density, cannot confuse the operator, and becomes of great importance when the print is placed in the fixing bath, as it completely disappears when the print is thoroughly fixed, and not before, leaving it a beautiful blue black, the tone so much desired by all gaslight printers and so hard to get by amateurs. This color, then, removes all the elements of uncertainty from the operation of fixing, and also gives warning when the bath becomes exhausted, as in that case it will not disappear until the prints have been placed in a fresh solution.

It is often necessary, in commercial work, to get gaslight prints out in the shortest possible time consistent with proper fixing and washing. By using this developer, the print may be taken out of the hypo as soon as the fixing is completed, thus saving many valuable minutes and making it certain that any deterioration of the print later will not

be due to insufficient fixing, but to the washing. Even here the element of chance has been removed, as the Velox people publish a formula for testing prints to find when they are thoroughly washed. The formula is:

| | |
|---|---|
| Water (distilled) . . . . | 8 ounces. |
| Potassium permanganate . . | 8 grains. |
| Caustic soda . . . . . | 7 grains. |

Drain the prints into a graduate and pour a few drops of the above solution in it. If the color of the solution remains pink, the prints are done, but if the water turns green, they are not ready to come out of the water.

*Preparing Non-abrasion Developer.*

Now, to return to our developer. It has been found that it is good for glossy and matt surface papers alike. In fact, after using this developer once, one is not at all inclined to return to the plain developer, as the non-abrasion has undeniable advantages over any developer that does not make it possible for the worker to accurately decide when the print is thoroughly fixed.

However much the results differ from the ordinary Velox developer, the composition differs but very slightly. The formula is:

| | |
|---|---|
| Water . . . . . | 10 ounces. |
| Metol . . . . . | 7 grains. |
| Hydroquinone . . . . . | 30 grains. |
| Sodium sulphite (dry) . . . | 110 grains. |
| Sodium carbonate (dry) . . | 200 grains. |
| Potassium iodide . . . . | 10 grains. |
| Potassium bromide (10 per cent. solution) . . . . . | 18 drops. |

The chemicals should be dissolved in the order named. The developer should be used full strength. No additional bromide is necessary, as the solution contains all that is required for a properly timed print. If the tones are not all that they should be, the fault is due to either under- or overexposure. It is important that the developer and the fixing bath should both be kept as cold as possible during the summer months. The temperature of these solutions has a direct effect on the color of the prints. Warm developer gives brownish blacks, while cold developer gives blue blacks.

## THE HEAD IN PORTRAITURE.

THERE are a few points about making "heads" that can be referred to with profit, and we can take them up with the assurance that every man who has produced a portrait worthy of consideration must have had them in mind, unless his portrait was a "fluke." They have nothing to do with the process; in fact, they are the steps beyond the process which the progressive portraitist must pass if his work is to live after him. First, we must look for character, and find it in the individuality of the subject. This finds its expression according to the nature of the subject. Some sitters best express their individuality in action, others in repose. Here it is a matter of feeling with the photographer. He can make his sitter to feel at ease, and then watch his opportunity. Farther than this no man can go. Many portraitists accomplish it by exposing a few plates more or less carelessly until they see what they want in the face of the sitter. This, I believe, is a favorite method with Mr. Hollinger. Sarony, accustomed to the men and women of the stage, used to rouse his sitters until they gave him what he sought in expression. I suppose he must have modified this treatment with his private patrons. Rockwood turns his conversation a thousand ways until he touches the key which awakens interest and character. Some sitters require quietness and tact, others

need "thawing out" by one device or another. It is necessary not only that the photographer should seek the individuality of the sitter, but that he should recognize the easiest way to secure its expression and its appreciation when once expressed. It is this all-important detail which makes success in portraiture so difficult; so much depends upon the man, and so little upon the photographic process.

Secondly, we must look after the modelling of the face, head, and bust. This includes the pose of the head and the regulation or control of the volume of light illuminating it. Here Inglis or any other reliable exponent of lighting in the studio will be of service, but the feeling of the photographer must be untrammelled and supreme. Lighting by rule may make a good face appear villanous; lighting with right feeling will make things appear as they are, and, instinctively, seize the noblest parts by selection, modification, and suppression.

Modelling a head includes also attention to the values in the subject, so that flesh may appear as flesh, and not as marble or bronze, so that each feature may preserve its proper relation and appear in true perspective, as in nature. These faculties are gained by the education of the eye, by the observation of nature, and by a continual study of the head wherever we see it, in every possible pose and light, at home and abroad. No manual, illustrated or otherwise, can teach one this; but every head we see will give its lesson if we seek it. In this we dip into chiaroscuro—the arrangement and management of light and shade. Sir Joshua Reynolds used to study this in an interesting and profitable way. When he visited the art galleries he roughly copied with a pencil and a pad of paper the arrangement of light and shade of the portraits he saw. No attention was paid to drawing; what he sought was simply the broad arrangement of the lights and shadows in approved works of art. Every picture one examines will teach something if viewed from this point—something of service now and again; often something to be avoided. Few photographers realize, when they look with admiration on a fine head by this or that noted painter, how much study, observation, and hard work went to the preparation of the man before he could put his brush to canvas with such telling effect. It is the art that draws our admiration, not the mixing of the paints or their application; the interpretation of the subject by analysis and synthesis on the part of the artist, not his skill as a draughtsman or colorist.

Third, we must secure a good line. This, again, is a matter of feeling; the photographer must either be able to perceive the desirable lines in his composition or train himself to their perception and attainment. By getting a good line I mean the management of the exterior and interior lines, the forms or masses of light and dark, and the placing of the subject within its borders or space — covering the posing and arrangement of the head and bust to the final trimming of the finished print. Upon the proper care of these details the portrait depends for its unity, balance, and proportion, qualities which determine its praise or condemnation.

Finally, we want atmosphere; the head must be enveloped, standing out in its natural roundness in space. We must be able to feel, so to speak, the space behind the subject. The parts which retire in nature should appear to retire in the portrait, so that there may be a measurable and natural distance between the nearest and the farthest points. There are other points equally worthy of the attention of the portraitist, but I have said enough to show that the making of "heads" is as difficult as it is fascinating, and so desist.

By O. H. Boyé, San Francisco, Cal.

By O. H. Boyé, San Francisco, Cal

By O. H. Bové, San Francisco, Cal

By O. H. Boyé, San Francisco, Cal.

By O. H. Boyé, San Francisco, Cal.

1. By Mrs. A. G. Barton
2. By Gertrude Kasebier
3. By Nicola Perscheid
4. By Hans Schweizda

*Illustrating Sidney Allan's Article*

5. By Helena Goude
6. By Ad. de Meyer
7. By Hana Robison
8. By Lebegue

*Illustrating Sidney Allan's Article*

9. By R. Dührkoop 11. By Lebegue 13. By Anon

10. By Lutzel Bros. 12. By Lebegue 14. By R. Dührkoop

*Illustrating Sidney Allan's Article*

# DRAPERY IN PORTRAITURE.

BY SIDNEY ALLAN.

THE word "drapery" means a textile fabric, garment, or vestment, used for decorative purposes upon the body (or otherwise), especially when hung loosely or distributed carefully in folds.

In modern clothes there is little chance for drapery, if compared with former periods of dress. Man's garb is almost exempt from it, unless it were a priest in his vestment or judge in his robe; and there are even then but slim opportunities for any esthetic distribution of folds; official gowns to be represented just as they are. A man's cape overcoat allows some manipulation in that direction, but it can hardly be called drapery.

Also, in woman's dress in these days of tight-fitting gowns there is but little chance for drapery effects except in the train. A directoire gown that is high-waisted and hangs loosely to the ground (Fig. 3) can be draped, but a dress with a stiff bodice and plaits and trimmings made after a certain pattern, as the lady in Fig. 4 wears, cannot be draped. The shawl is really the only vehicle in which the operator can try his skill, *i. e.*, in ordinary portraiture. The theatrical photographer, of course, has many opportunities, and so has the amateur who takes fancy and costume pictures. In Figs. 8, 11, and 12 we see the masterly handling of drapery by the well-known French amateur, R. Lebegue, of Paris. He has not the phenomenal skill of Herzog for crumpled pre-Raphaelite drapery, but in so-called classic drapery and single figures I believe him to be his superior.

But such pictures never enter portrait photography. Of course, at times, a lady wants to be taken in costume, but pictures of this kind are hardly ever satisfactory. It needs a special talent to arrange drapery. In Fig. 7 we have "A Greek Slave," by Hana Robison. The head and the hands holding the jar are beautifully posed, but the drapery is heavy and awkward in its lines. One feels that this lady put on a flannel blanket merely for the purpose of arranging a statuesque pose. It does not look quite natural on her. It could be done so much better, and yet it is one of the best of its kind. It shows at least a sincere effort.

In drapery everything depends on lines on lines that flow freely, that do not obscure the form, and yet do not show it too clearly. There must be a few decided lines, the remainder must be broken and produce numerous small planes without becoming confused. The leading lines must have a bold sweep to them, and the longer they are the better. All the others should be subordinated to them. They should never interfere with the lines that indicate the shape of the gown or the silhouette of the form underneath. The short curve and wavy zigzag line will generally prevail among them. Fig. 8 is very well draped in parts. The 3-shaped fold over the lap, however, is not fortunate, and the drapery in the lower right corner rather clumsy. Fig. 10 and particularly Fig. 11 are good examples. The poses are simple and graceful, and the drapery is well managed.

In portrait photography, as aforesaid, there is little chance for this sort of thing. A shawl and a train are scarcely pliable enough to lay down any definite rules about the management of lines.

Figs. 5, 9, and 13 show how differently a shawl can be used. Fig. 13 offers nothing but an accurate representation

of a shawl. It is treated so realistically that it might almost serve as an advertisement. There is nothing beautiful about it. In Fig. 5 the shawl is handled to advantage. It really makes the picture. The lines run perhaps too much in the same direction, but a shawl at its best is only an embellishment, and so long as its shape is agreeable and offers a color contrast to the rest of the picture it is acceptable. In Fig. 9 the shawl has been used in a more artistic manner. Dührkoop is continually trying for new effects. He never rests on his laurels, as so many of our photographers do. Of course, this is an outdoor picture (with a special emphasis on the picture), but as long as a picture is at the same time a good portrait, as this one seems to be, one can surely find no fault with it. On the contrary, it is praiseworthy, as it offers some suggestion to get away from the common rut of things.

A shawl can be worn only in three ways: on the head, over the shoulders, or leisurely over the arms, as in Fig. 4. The latter is probably the most picturesque. It affords the best opportunity for drapery effects. If the color of the shawl in Fig. 4 were different in value to the dress, I believe a stronger and more pleasing effect could have been realized. A shawl hanging over both shoulders will always be a trifle too symmetrical unless seen in a profile view, as in Fig. 5. It can only be avoided by letting it slip down from the shoulder, or having one side longer than the other, or by bringing one side across the body. A shawl on the head can be arranged in many ways. It can hang loose, as in Fig. 9, be wound about the head or neck, or draped over the shoulder and bodice. The border lines will always play the principal part in the composition, and special attention should be given to them. As a shawl after all plays only a minor part in the composition, it is well to have it different in texture and color to the rest of the lady's gown, and to use it merely as an accent, a spot that tells and is interesting in its monochrome values as well as its shape.

Fig. 6 is a rather extraordinary representation of a lady's train. This I would call drapery, and well managed, too. It is, however, entirely too pictorial and conspicuous for a straightforward portrait. Of course, if the sitter is satisfied there is no use of arguing. But I fear the opportunities for pleasing one's sitters with such startling effects are scarce in most studios. The lines in this lady's train are exceedingly well managed. Even a painter who has the advantage of continuous re-arrangement could be proud of it. The train in Fig. 10 is very poorly managed. There is only confusion, neither leading lines nor interesting shapes.

A directoire gown is always conducive to good line work. I think the photographer could have done better with Fig. 3. But perhaps it is the fault of the lady, who is rather heavily built for this kind of a gown. Clever use has been made of the shawl. It is the third variation I have mentioned, but a new effect has been gained by draping the settee with it and utilizing it as a background.

The opera cloak, wrapper, and kimono are about the only loose pieces of dress that are worn by ladies nowadays. Neither are hardly voluminous enough to be arranged like drapery. There is no drapery effect in Fig. 14 except in the lace embellishments.

I have not yet mentioned Figs. 1 and 2. I have selected them as illustrations merely to show what individual talent may accomplish. In Fig. 1, Mrs. G. A. Barton had nothing but an ordinary girl's gown. By letting the wind play with the frock she succeeded in getting

a beautiful drapery effect. Of course, this is an exhibition picture, and an extraordinary case, that cannot be imitated. It should merely suggest all sorts of possibilities to the thinking mind. Mrs. Kasebier works on that order. In her picture we see a common blanket, such as is used to wrap infants in, arranged in such a way that it becomes the most important factor in the whole composition. The way it is flung across the knees of the mother is a masterstroke. It pulls the whole group together and helps to construct the coveted S-shape, of which writers on composition talk so much. It is an odd picture; of three faces, only one is shown; but so far as composition is concerned, it is a bold innovation and a masterpiece.

## COPYING FADED PHOTOGRAPHS.

INQUIRIES are frequently received as to how to copy a photograph that is beginning to fade and which, for the sake of some old association, it is not desired to lose entirely. A writer in the *South African Photographic Journal* gives the following method which is worth trying.

In some cases the original may be cleaned or otherwise improved by chemical treatment, so that a better copy may be secured. Such work, however, requires care and is always risky, so that it is advisable to secure the best possible negative that can be made from the photograph as it is, before proceeding with any attempt at improvement.

The gelatine film of a P. O. P. print is peculiarly liable to attract dust and dirt, unless framed or kept in an album. Greasy and dirty finger marks may be removed, to a great extent, by very gently rubbing the film with the crumb of rather stale bread—on no account should it be new or moist. Probably this will remove the major portion of the discoloration. If not, the print should be cautiously rubbed with a clean piece of absorbent cotton moistened with benzine, which will remove any remaining grease marks, and speedily evaporates. Benzine should only be used in the daytime away from any light, since its vapor is highly inflammable.

So long as the detail is tolerably distinct, there is no real necessity for treating a yellowed albumin print before copying, since, on an ordinary, non-orthochromatic plate, mere yellowness will frequently result in making it possible to obtain a much brighter and more vigorous copy than would be expected from looking at the original. If much yellowed, it is worth knowing that a blue or violet screen placed in front of the lens (or behind it, if preferred) will cut off the yellow rays, thus making the faint details photographically black. A suitable screen can be obtained from any optician, this color of glass being in request for goggles; or one may be made by staining an unexposed, fixed, and washed plate with a solution of methyl violet, an aniline dye procurable from the chemist. When, however, the print is very far gone, the following plan might be tried, having first taken as good a negative as possible from the original, for fear of mishap. Soak off the print from the mount by leaving in water until it comes off of its own accord, and well wash to get rid of any adherent mountant. Then make up a solution of neutral gold potassium chloride in distilled water, of a strength of 1 grain to the ounce. The print is allowed to remain in this until it appears sufficiently restored, well washed, refixed in a clean

hypo bath of the usual strength for prints, and finally washed thoroughly. It can then again be mounted and copied from. The use of mercuric chloride for removing yellowness, as sometimes recommended, is terribly risky.

A dull bromide print on matte surfaced paper is, especially if old and slightly faded, very difficult to copy. In such a case it is a good plan to secure an artificially glossy surface on the print. This is very readily done by rubbing the latter lightly with encaustic paste, applied with a soft rag, and polishing off with a silk handkerchief or flannel. The following home-made mixture is also very suitable: Melt 100 grains of pure white beeswax in a small enamelled or porcelain vessel, and add, when melted, 40 minims of dammar varnish and 100 minims of pure oil of turpentine, taking care not to overheat, and use when cold as described for encaustic paste. This method greatly brightens the print, helping to bring out the buried shadow detail, and so enabling a better copy to be obtained; it is equally applicable to platinum and other matte surfaced prints.

An unmounted albumin, P. O. P., or bromide print which has become cracked and soiled, may be rendered suitable for copying as follows: Lay the print on a flat surface and rub it gently all over with glycerine, applied liberally with a tuft of absorbent cotton. Much of the surface dirt can be removed in this way. Fresh glycerine is then poured on and the print is squeegeed face down on a clean sheet of glass. A piece of stiff white paper is next well moistened with glycerine and squeegeed over the back. The print can now be copied, the glycerine having temporarily brought it into optical contact with the glass, thus abolishing all the worst cracks and obliterating the grain of the paper. Of course, care must be taken to avoid reflections from the glass. When the negative is secured the print is removed from the glass, carefully washed and dried, or, if preferred, mounted.

## HOME-MADE BACKGROUNDS.

Not a few who have essayed to make a plain background for the first time, simple as it seems, have failed in applying the color in such a way as to obtain an even surface when the work is finished. Now, there is really no great difficulty in the matter if one goes the right way to work, and the few practical hints I shall give should enable anyone to successfully make his own plain backgrounds. There are two or three methods of producing backgrounds, but those in distemper and flatting color are the most general. The former may be termed a water color process and the latter an oil color one. The distemper is the easier of application, and can be done by one person, but is the less durable of the two. The latter, unless the worker is somewhat expert, requires the services of two people in order to obtain a perfectly even coating. By both methods I have made scorces of new backgrounds and re-colored old ones. I shall here assume that a new one is to be made by the distemper method.

### *How to Prepare the Material.*

At all the large dry goods stores and upholsterers a suitable fabric for our purpose is sold under the name of unbleached sheeting up to eight feet wide, and of any length. It is of different qualities and prices. The highest

quality is unnecessary, but it is advisable not to have a very common one. A frame, of course, is required upon which to strain and fix it. It will be well to have a pretty substantial one. If it be made of inch and a quarter or inch and a half stuff, and mortised at the corners, it will be very suitable, and a background can be put on both sides of different degrees of darkness. The canvas should be fastened by turning it over the edge of the frame and securing it by tinned tacks. In fastening the canvas to the frame it should not be strained too tightly, as the sizing and coloring causes it to shrink, and much shrinkage would cause the frame to cast, unless it be a very substantial one, so that it would no longer be flat. Before the color is applied the canvas must be sized in order to keep it on the surface. Two coatings may be necessary unless the fabric is very thin.

Obtain from the oilshop some "double size," and melt it in a saucepan. For the first coat a little water may be added to dilute it. This is applied to the canvas with a whitewash brush. After the first coating is dry the second is applied, undiluted, in the same way as the first. When this is dry all is ready for the color. This, of course, may be of any tint; gray is the most usual color, but it is much improved in appearance if a little red be introduced to give it a warm and more cheerful tint.

### *Mixing the Distemper.*

The pigments usually employed are the common whiting of the oilshops and lamp black. The ordinary lampblack, by reason of its lightness, is difficult to mix with water, therefore it is more convenient to use what is known as "drop black," which mixes easily. In a bucket put a block or two, according to the size of the background, of the whiting and sufficient water to make a thin paste, then add the black, little by little, until the mixture, when intimately mixed, is of a dark gray color. When this is done rub a little on a piece of brown paper and allow it to dry, to show the color, for it cannot be judged of from the mixture, as it always dries much lighter than it appears while wet. If it proves too light, more black must be added, and if two dark more whiting must be mixed in. No definite proportions of white and black can be given, as they, necessarily, must depend upon the tint desired. When this is arrived at, a little Venetian red of the oilshop, in powder, if a warm tint is required, is added. This will not materially affect the photographic value of the color. Water is now added to make the mixture about the consistence of a thick cream. It goes without saying that unless the colors be intimately mixed streaks of black or red will show when the work is finished.

Next add to the mixture, melted, a *hot*, double size in sufficient quantity to produce, when quite cold, a thin tremulous jelly. Here again no definite proportions can be given, inasmuch as the size of the oilshops is so very variable. The actual proportions can only be arrived at by experiment. The best way is to prepare the mixture over night and let it stand till the next morning, then if it is firmer than the condition just mentioned—a thin tremulous jelly—some hot water must be added and the whole allowed to get cold again, when it will be ready for use, as it must be laid on cold. A mistake that some have made in attempting to produce distemper backgrounds is in using the color warm. Another is in adding too much size. Only just sufficient should be employed to make the color adhere when dry, and no more. Anything beyond this amount only increases the difficulty of application and the production of satisfactory surface.

*How to Apply the Color.*

For the applications of the color a large whitewash brush, in good condition, is required. If the worker does not possess such a thing, one may sometimes be hired from the oilshop or from a local house decorator. With a bad or small brush an even coating is next to an impossibility. To get evenness some little knack is necessary, but it is easily acquired. Thoroughly saturate the brush with the color and lay on thickly, commencing at the top of the background and going right across and working regularly downward till all is quickly covered. The quicker the work is done when once commenced the better. It is not necessary to be too particular in smoothing the work off, as it will, if thickly laid on, dry more evenly than it looks while wet, but thick ridges must obviously be avoided, so must too thin a coating. In no case must the coating be gone over a second time, or marks are certain to show. The chief thing is to get the whole surface coated before any portion begins to dry.

It has been recommended by some to add a pound or less of molasses to the color in order to retard its drying while being applied, but I have never found it necessary except, perhaps, in summer time, or when the air is unusually dry. At this season the addition is not desirable, as in damp weather the coating, if an excess be used, will have a tendency to absorb moisture. If a background has to be done over again, owing to its proving to be too dark or too light, it should be re-sized before the second coating is applied. Should an old background have to be dealt with which is already thick with color, it may require two coats of size, in which case the first should be somewhat diluted so as to penetrate the thick color and render it less abortive of the second coating. —WILLIAM MITCHELL, in the *British Journal of Photography.*

## CHROME ALUM.

THE hardening effect of the ordinary alum bath was shown some time back to be due to the combination of the alumina with the gelatine. But chrome alum contains no alumina or aluminum, it being called an "alum" simply from similarity of chemical structure. Professor Namias has recently been doing some experimental work with chrome alum, and he found that if the acidity of the substance is neutralized, its powers become much greater, and so great, in fact, that it can render a gelatine film completely insoluble in boiling water. It was demonstrated some years ago that chrome alum would enable one to "boil" photographs, though we do not, of course, want to go quite to this extent.

When working with highly glazed postcards and prints of the glazed type, it is sometimes very desirable to harden the film and render it impervious to scratching when going through the post. Chrome alum makes an excellent hardening bath for ordinary purposes if one ounce of it is dissolved in fifty of water. If desired, the acidity may be neutralized with an alkali, but this is not necessary where simply a good hardening effect is wanted.

Another instance where chrome alum comes in very useful is in the preparation of an acid clearing bath. Here we have to employ an acid to "clear" the film when, for example, using the ferrous-oxalate developer, and the acid is apt to cause trouble with the gelatine

film. But, although we could not well use potash alum in conjunction with an acid, we can make use of the chrome alum and prepare the following clearing solution with the hardening agent to counteract the acid effect:

| | |
|---|---|
| Chrome alum . . . . . | ½ ounce. |
| Hydrochloric acid . . . . | ½ ounce. |
| Water to make . . . . . | 1 pint. |

A word may be said in regard to the use of chrome alum, and that is, that with certain plates it makes the films very brittle. Three or four minutes' immersion should be found quite sufficient, as a rule, both to stop frilling and blistering and to render the surface of postcard prints perfectly immune from post office handling.

## WASHING PRINTS.

VERY vague ideas exist as to the kind of washing required in the production of a negative or that of the various kinds of paper prints. One hears occasionally of both plates and prints being left to wash all night, and quite frequently prints are left for several hours in a dish or basin with the tap just dribbling. It is not realized that the only advantage of *running* water is that the water in which the prints are immersed is—or should be—frequently changed. The term was most probably used originally to indicate to those not well versed in chemical or photographic procedure that mere soaking in one comparatively small quantity of water was not a satisfactory method of dissolving away the undesired products.

### *The Wrong Kind of Running Water.*

A fairly long experience of various workers' methods shows that when running water is employed it is used in the wrong way. A number of P. O .P. or bromide prints, for example, will be left either in a basin or a flat porcelain dish with the tap running, but examination shows that the prints are lying flat against each other, and that the lower layers of water in the vessel are scarcely ever changing. Now, as the water dissolves the hypo from the prints it increases in density, and consequently remains at the bottom of the dish, and the running water is really simply running to waste. If, on the other hand, some rotary washer is used, the prints being mechanically circulated by means of a forcible current or spray, the washing may be more thorough, but the destruction of the print is probably equally so. Many of these devices work beautifully in theory, and sometimes in practice also, but the time comes, sooner or later, when something causes a print to cling somewhere, and the whole batch becomes more or less crumpled up, and the probability is that some of the prints are damaged.

### *The Right Kind of Running Water.*

When water is constantly running past a print, so that a fresh supply is continually reaching every part of both sides of the print, we have the best conditions for quick washing. Such conditions are very difficult to obtain in everyday work, especially with batches of prints from a dozen or two up to the several hundreds or thousands handled in large workshops. The method employed in one of the large view publishing firms' printing rooms was to place the prints—mostly large sizes, or a full sheet of paper printed from a number of negatives wedged together in a large printing frame—on fine cord netting, and to spray them with a gentle spray of water from large rose taps, the

prints being turned over from time to time. Here, of course, printing, toning, and washing were in progress all the day, and the washing of the prints received constant attention. This is the keynote of success, and it is a little difficult to see why the printing should be carefully seen to, and the toning receive every attention, and then, after so much time has been expended, the whole product should be lost by the lack of another twenty minutes' care.

*The Advantages of Hand Changes.*

If it is not safe or convenient to get constantly changing supplies of water round the print by means of a current of water from the tap, it is always easy to resort to the simpler expedient of dropping the print into another vessel containing a fresh supply uncontaminated by any hypo. By using a couple of porcelain dishes, filling and emptying them alternately, and passing the prints *one by one* from the dish in which they have been immersed for a couple of minutes to the freshly drawn supply of water, the most perfect elimination of the hypo is secured. It is safe to say, not as a hypothetical statement but as the result of extended tests and a prolonged use of the hand-changing method, that ten changes of two minutes each is a more effective washing than ten hours of lying in a dish into which water is running either from the tap direct or through a piece of rubber tubing carried into the dish.

*Complete Fixation also Necessary.*

As bearing on the matter to an important extent, it may be well to point out that prints should be thoroughly fixed in order that they may be readily washed. An imperfectly fixed print contains salts which are not freely soluble in water, but such salts, on further immersion in hypo, become changed to a freely soluble form. The same turning over and over of prints in the hypo bath is, therefore, to be recommended as a necessary preliminary for complete washing.

*Disadvantages of Soaking.*

It may be argued that if the prints are sufficiently washed in ten hours by the dribbling tap method, that is better than spending twenty minutes of the worker's time over the hand changes. There are several replies to this. Even if we assume that the washing—*i. e.*, the removal of hypo—is as thorough—a doubtful proposition—there is the question of the gelatine and the paper. Even the carefully selected paper employed by the manufacturers will not stand prolonged immersion without softening or tending to become pulpy, and in warm weather especially the gelatine is exceedingly likely to form a germ culture for the myriads of bacilli which are around us. Experience again shows that the color of the paper, the color of the image, and the color and condition of the gelatine are better for the shorter time of washing.

*A Question of Policy.*

Finally, there is the question of the water supply, and its reasonable use. The town worker turns on the tap and goes away to his pipe and the current copy of W. P. M. and forgets how many gallons of water supply are running practically to waste. It is only to be expected that the Water Board and various companies will have their eye on all possible sources of revenue, and waste inspectors are constantly on the lookout for continuous running of the supply. Attempts to charge an additional rate to photographers have been made, and the best way of resisting such attempts is habitually to use only the little needed and to be prepared to demonstrate how little is used.

# THE PHOTOGRAPHERS' ASSOCIATION OF AMERICA. CONVENTION OF 1909.

BY PRESIDENT BARROWS.

It is with a sense of optimism for the future of the P. A. of A. that plans are contemplated for the Rochester convention which are intricate, arduous and vitally essential to the future welfare of photographers. I would shrink before the task undertaken were it not for the hearty support and approval of the rank and file of our craft. Their loyal support of my chief aim and desire, that of amalgamating the interests of the state associations, has led me to believe the time has come to place this matter before our members for discussion.

We have year after year spent of our time and money congregating together, and that we have been benefitted, instructed and socially entertained each year is best proven by the continuous interest and attendance.

This year we desire you shall have all the good that has matured out of the past, but let us seriously and unselfishly bend our energies toward perfecting a universal brotherhood which shall, in time, include the majority of the professional photographers of the United States and Canada.

This is a big undertaking, but not impossible nor improbable. All that is needed is the earnest and self-willed intent of the best minds of our profession. Canvassing among our members for their opinions has demonstrated that action is both wise and expedient. It has therefore been decided to start the movement which I hope will culminate in a perfect working congress of photography.

This plan will in nowise interfere with the state societies, but on the contrary, it will tend to strengthen and increase them, as in my opinion with such an organization, no one could become an active member of the P. A. of A. unless he held credentials from his state society. All others would be associate members and would be deprived of none of the privileges except voting.

The legislative work could then be conducted by delegates from the state associations elected or appointed by their respective societies. In order that this plan may have a practical test I am placing this matter before each state society, asking for delegates who will assemble at Rochester for the purpose of perfecting a future plan of action. Their report will then be placed before our members for consideration.

The Ohio-Michigan, the first convention of the year, has taken favorable action and the following delegates have been appointed:

For Ohio: C. L. Lewis, Toledo; W. L. Smith, St. Marys; J. A. Walker, Bowling Green. For Michigan: E. E. Doty, Belding; J. F. Rentchler, Ann Arbor; E. F. Tray, Jackson.

The Professional Photographers' Society of New York at its recent meeting approved the plan and has appointed the following to represent it at the National Convention: Pirie MacDonald, New York, B. Boice, Troy, and B. F. Puffer, New York.

The Canadian Association has abandoned its convention for 1909 and will attend the Rochester Convention in a body and will appoint delegates. It is ready to support this undertaking, which makes this year one of opportunity for international results.

This invitation is now before the Pennsylvania state association for approval and will be advanced to all other organized bodies of professional photographers before the meeting of our convention in July.

Arrangements have been perfected whereby the delegates will meet in the Chamber of Commerce Hall apart from the convention; this procedure will demonstrate the wisdom of a delegated body for legislative action in the interest of photographers generally.

As soon as notification of the election of a delegate is received appropriate credentials will be assigned him and no person will be recognized or admitted to this congress without them. The congress will act independently of convention and report its deliberations to the P. A. of A. for amendment or adoption.

There are to be other matters pertaining to the week's accomplishments, other than law and organization, which will make for the Rochester convention the heaviest week's work in the history of its twenty-nine years' service to photographers.

The School of Photography will be represented by the foremost men of our profession and conducted in Convention Hall under the leadership of Ryland W. Phillips, of Philadelphia. For persistance and untiring energy this man Phillips has no superior and when he conducts this school we are assured of its success. Back of him stands every member of our association ready and willing to lend assistance. Details of the school will be given out later.

The picture exhibit this year is to be complimentary. This one feature of Convention Week is to prove the contending opinion of prizes. I have now filed away treasured letters of endorsement for the Board's attitude on this question from many leading photographers, all promising their best efforts and an exhibit for the Rochester convention. Think of it! Seventy of our leading men promising from four to six pictures and at this early date. I prophesy for the Rochester exhibition one of the best and most attractive collections in recent years. Many others will be invited to sustain the prestige of American professional photography. As the pictures are to be catalogued this year we must know early of your intentions of becoming one of the exhibitors. Therefore be loyal to your association and friends and write Mr. A. T. Proctor, Huntington, W. Va., of your intention to send from four to six of your best pictures neatly framed, that, when our pictures are hung, we may all point with pride to our Art Gallery of 1909. Remember that all pictures are to be hung by states, so let us show what state organization can do in promoting state pride. Get busy.

The women of America are to be given a distinction this year by exhibiting collectively. Enough signatures have been received to warrant the success of this innovation; but the women must become interested to make the best possible showing, and with their assured coöperation success is certain.

There is so much work to be accomplished in this, our first six-day convention, that we are having difficulty in finding time to work out the week's program. One day of the week is given over to Rochester's manufacturing interests, which are many and varied. You can choose for yourself where you can most profitably spend the day. The Eastman Kodak Co. have asked for one night to entertain our members and this has been granted them, and they extend the invitation to every one, man or woman, photographer or dealer, wearing a button to be present. You will miss a good time if you stay away. The reduced railroad rate by the Trunk

Line Association, New England Passenger Association and Canadian Passenger Association on the certificate plan, one fare going and 3/5 fare returning, is the first reduced rate we have enjoyed in three years and I am sure we shall be greatly benefited by this concession. Added information along this line will be given out as fast as received, with full instructions as to the purchasing of reduced rate tickets.

How about your dues of $2.00? Have you paid them for 1909? If not send to L. A. Dozer, Bucyrus, Ohio, and if you are in arrears he will tell you how you stand. If you are not already a member, and desire to become one, send $3.00 for membership and $2.00 annual dues, and upon receipt of the $5.00 Mr. Dozer will enter your name on our list and send you receipt.

Remember the $100.00 cash prize which will be awarded during convention week for the best invention or process. Any exhibitor competing must have article or device on exhibition throughout convention and make public demonstration before convention members at a time which will be announced through program. There should be general interest in this invitation, and it sometimes happens that the one who least expects the award is successful in taking home the money.

The headquarters for the convention have been located at the Seneca, a new and modern hotel, first class in its appointments and near to Convention Hall. Write in advance and secure your accomodations.

There are other first-class hotels which offer special rates, including the Powers, Rochester, Whitcomb and Osborn.

It is time to begin your preparations for the convention. Get your exhibit ready. Take a week's vacation in July and attend the big convention in Rochester.

F. R. BARROWS,
President.

## PROFESSIONAL PHOTOGRAPHERS' SOCIETY OF NEW YORK.

### Fifth Annual Meeting, April 7, 8, and 9, 1909.

THE Fifth Annual Meeting of the Professional Photographers' Society of New York was held in New York, April 7, 8, and 9, and adds another success to those already achieved by this young, but vigorous and flourishing society.

Following the example set in former years the program was carried through in a businesslike manner. President Bradley was ably supported and assisted by the officers and had the good-will and coöperation of every member present.

The attendance was greater than ever—the Society losing few of its old members and gaining new ones all the time. The enthusiasm was as keen as ever, manifesting itself in a wonderful manner at the banquet.

The fifty dollar prize idea retained from last year repeated its success and drew forth many good and useful ideas that will be put into practical application in many studios.

The picture exhibit, each man represented by one print, while not remarkable for anything exceptionally fine, maintained a very fair average. From information gathered from the hanging committee it would seem that the members are somewhat inclined to leave the selection of their best picture until the very last minute and in which they do not always do themselves, the society,

or their profession justice. The exhibition was for the first time opened to the general public and drew a large crowd of interested visitors. If this "open shop," policy is to be repeated we would like to suggest that a little more uniformity in size and framing would help to create a better impression upon the outsiders.

The Society is to be congratulated upon having elected an able staff of officers. In Mr. H. A. Bliss, of Buffalo, a good president has been secured. He is a thoroughly capable man and has the best wishes of every member of the society. It is interesting to note, that with the exception of the second vice-president (Mr. S. H. Lifshey, of the Metropolitan Section) all the executive officers are taken from the northern or western part of the state.

The demonstrations by Mrs. Kasebier, Mr. Core, and Mr. Hoyt were thoroughly enjoyed by large and interested audiences, as were the illustrated lectures of Mr. Phillips and Mr. Puffer. Below we give a condensed report of the proceedings.

WEDNESDAY, APRIL 7.

*President Bradley's Address.*

At the practical conclusion of my two years' term of office as President of the Professional Photographers' Society of New York, I bespeak your indulgence for a few brief moments that I may draw a summary of our organization's work, make some deductions and a few suggestions, in the hope that from some of my observations a few scattered seeds of usefulness may fall and take root in the soil of my successor's administration, and so be the means of carrying the Society's work to greater development and fruition than I found possible to do in my tenure of office.

I speak with a full consciousness of the fact that there were many things done that should have been left undone and many left undone that should have been done, therefore there is much—very much to be accomplished. I trust that from this convention we may all derive much benefit, from a friendly interchange and comparison of ideas, which may have the effect of broadening and stimulating our mental horizon, and, together with the many instructive features of the demonstrations, shall instill a renewed inspiration and determination for still greater advancement and form for many the nucleus of a stepping-stone into the higher realms of artistic achievement and bring a corresponding pecuniary advantage to their material welfare.

I earnestly hope that our visiting brothers who are not in touch with their local sections, or who have no local sections in their immediate localities, will take steps toward uniting with the one or an active interest in the formation of the other, and that all may return as earnest converts and advocates of this, I believe, destined to be all-embracing idea of photographic fraternity and coöperation. I use the word convert advisedly, for in the brief space of four years you find in the one addressing you a convert and reformist of the most pronounced type, one who from an apathetic condition regarding others of his chosen profession and photographic societies in particular, is now keenly alive to the really burning issues at stake and the principles for which these organizations stand.

There is surely no one who has given the least consideration and thought to the subject of professional or coöperative societies, and the fact that not competition but coöperation—reciprocity—is the great and true power, who can fail to be impressed with this movement and its rapid growth, not alone in our own state but in various localities

where there has been the rapid organization of sister societies working along similar lines and with the same aims, purposes and ideals as the Professional Photographers Society of New York.

A man's opportunities and the advantages presented to him by our coöperative association possibilities are only limited by his own powers of discrimination and absorption and his ability to properly assimilate all of the opportunities constantly being presented and brought before him strictly through the channels and tributaries of our Society.

It is certainly high time that the photographer, not identified with any such movement, awaken from his lethargy and Rip Van Winkle-like sleep and come out into the open and learn to estimate and understand the many very decided advantages to be derived from a closer intermingling and communion with his professional kinsman, both from an economic and social standpoint. That this truth is surely awakening a sympathetic repsonse in the hearts of many who have heretofore remained obdurate to the appeals of photographic organization work is a self-evident fact and subject for congratulation.

That besetting sin of mankind, impatience of results, should have no place in the vocabulary of our society's members, and while we can view with a great deal of satisfactory complacency the results achieved in the past, there is always right in sight and waiting for accomplishment enough to satisfy the whetted appetite of the most strenuous worker. There is still a great amount of uncovered ground and almost incalculable missionary work to be performed which comes directly and more particularly under the head of our various local societies. That those responsible for the framing of our own Society's Constitution were keenly alive to this particular point is shown in their thoughtful division into various sections of our State of New York, that they may be better enabled to handle questions of local interest and for a closer and more intimate relation of our members at their monthly gatherings.

If every man within the sound of my voice would take it upon himself to make one or possibly two converts to this organization work within the coming year (take your man aside and point out the many advantages to be gained by his coöperation with us and do not accept "No" for an answer), you will have accomplished a very long step toward the elimination of any unnecessary or unfair business rivalry or price-cutting and a general upward trend of our relations as man to man, not by dictatorial mandates but by the more zealous and wholesome method of a practical and educational interchange of views and experiences.

You will appreciate the greater need for coöperation when you consider the importance of our art in its relation to every phase of human activity, from the whirring presses, groaning under their burden night and day to supply the demand for millions upon millions of pictorially illustrated papers, magazines and literature of every variety, on through the arts and sciences, and by one method or another bringing joy, gladness or consolation into the lives and surroundings of all the people in the land. Let us therefore awaken to a full and realizing sense of this great power placed within the hands of the votaries of Daguerre, and with a quickened perception of our art's possibilities, go out into the highways and byways and present concisely and clearly to our reluctant brothers our reasons and plans for a greater and better organization, and then shoulder to shoulder and by earnest coöperation strive ever onward and upward for a greater and better exposition of our art and its possibilities, and at the

same time strive to develop a just and sane appreciation for a fair compensation from the great public whom we seek to serve.

In closing there is a suggestion afoot to stimulate the growth of the local sections; as this will undoubtedly come up later, I shall not occupy your time by going into further details than to state that I am wholly in accord with any plan that may lead to an all-embracing organization and one that may tend to bring within our fold the man who, through a mistaken view of economy, or other valid reason, is not at present coöperating with us or in attendance at our meeting.

I would, however, raise a note of warning against any too radical change in our present method of procedure, as anything that would tend to militate against these yearly gatherings and reunions by our whole State Society I should gravely deprecate. These are of too great value and benefit to us to readily entertain any change that would in the least involve this part of our yearly program.

Another suggestion would be that we might, as a body, agree to loan our annual picture exhibit to the various sections to be in turn exhibited at their local meetings throughout the state. This would answer the twofold purpose of affording the non-attendant an opportunity of studying and deriving a benefit from them, and also be the means of attracting the attention of the press and public and thereby advancing the interests and importance of our art in the estimation of both.

Reports of the various sections were then read; the treasurer's report showing a favorable balance was also read.

### Wednesday Afternoon.

This was devoted to the demonstrations; Mr. Harris, of Washington, leading off with an instructive demonstration of a simple method of studio bookkeeping, illustrated by printed examples of the method distributed to those present. Mr. Harris pointed out a common mistake made by photographers in arriving at their profit and loss account, that is the omission of their salary from the expense column, the salary being of course properly chargable to the expense account.

Mrs. Kasebier then gave an interesting talk on composition and other things, using a blackboard to illustrate her points and incidentally telling some very amusing stories which were much enjoyed. Among other things Mrs. Kasebier remarked that "you must first tire out your sitter before you can get what you want" and that she "never posed hands."

Mr. Dudley Hoyt then gave a demonstration of his masterly style of draping. With a few yards of soft material be very effectively draped his model and produced a set of the sort of pictures that have made him famous.

Mr. E. B. Core, responding to a telephone call from the hall, arrived with an outfit and proceeded to show how he gets his wonderful children's pictures. Two baby models—model babies they were—gave Mr. Core the chance to show his audience what an easy matter it is to get the baby smiling and make a picture that captures the mother's heart and opens the father's pocket-book.

This terminated the afternoon session. In the evening Mr. Ryland Phillips delivered his illustrated lantern lecture before a very large and appreciative audience. The lecture, which has been in preparation for the past two years, shows by a series of slides the different skylights of many of our best known workers. First the light arrangement, position of sitter and camera are shown, then a picture of the negative before it has been worked upon, and finally a

picture of the finished result as delivered to the customer. The lecture was most interesting and instructive and was much enjoyed by all present.

After Mr. Phillips' lecture Mr. B. Frank Puffer gave a demonstration of his method of working with the electric light. Using an Aristo lamp and black and white reflectors, he demonstrated the possibility of getting good negatives with from half- to two-second exposures, using a Cooke lens working at *f* 5.6.

THURSDAY, MAY 8.

The morning was devoted to the $50 prize demonstrations.

The first idea offered was Pirie MacDonald's method of simplified bookkeeping. It consists of a loose-leaf binder into which a duplicate of every invoice is inserted, where it remains until paid, when it is transfered to a transfer file. If there are several items charged to one man, and only so many of them are paid, these paid sheets remain in the unpaid binder until all charges are paid, thus keeping together the whole of one man's account whether paid or unpaid.

Mr. Geo. G. Rockwood showed some transparencies with the color burnt in, for portraiture in stained glass windows.

Mr. S. R. Lewis, Utica, N. Y., showed a clockwork device for slowly rotating a tank and keeping the developer in motion. Can be made to run for three hours and in conjunction with the Thayer timer will ring a bell. This enables the photographer to do other work while the plates are being completely taken care of.

Mr. B. Frank Puffer, New York, showed a simple tank developing outfit, consisting of a wooden box containing a universal fixing box in which twenty-four 8 x 10 plates or forty-eight 5 x 7 plates can be developed at one time. The wooden box being a non-conductor of heat or cold the temperature of the developer remains the same for many hours.

Mr. Carl K. Frey, of Utica, showed a print dryer consisting of a large drum and a small roller connected by about seven yards of common bleached muslin.

The prints are laid between blotters and placed on the muslin and rolled onto the drum, which being covered with quarter-inch wire netting and a layer of felt permits the air to get through to the prints. Up to a thousand prints can be dried flat in a few hours.

Mr. Frey also showed a device for storing and holding backgrounds in position. Taking up no more space than the ordinary background carrier, it had accommodation for seven backgrounds, any of which could be instantly lifted into position and unrolled.

Mr. Baumgartner showed a simple method of constructing a vignetter.

Mr. E. J. Wendell showed an adapter for larger plates on a small camera, also a system of making enlargements on developing paper.

Mr. Frey was voted the prize of $50.00 for his print dryer. Later in the day Mr. Frey announced that he had donated his prize money to a deserving orphanage in his city.

After some routine business had been disposed of the meeting adjourned to reassemble at Terrace Gardens for the annual banquet.

The banquet repeated the great success of the previous year with the added enjoyment that comes from a better acquaintance. The arrangements were again in the hands of Pirie MacDonald and left nothing to be desired. The dinner was exceptionally good, as were the speeches that followed. Mr. E. B. Core was an eloquent and genial toastmaster. The speakers included President Barrows, President-

elect Bliss and S. R. Lewis, of Utica. During the evening Mr. MacDonald, on behalf of the Society, presented President Bradley with a massive silver dish as a slight recognition of the good work he has done for the Society during his two years of office. Mr. Bliss presented a set of amythest sleeve links from the Buffalo section. The Treasurer of the society, Mr. Al. Lloyd, was presented with a gold-mounted fountain pen, as was Mr. S. H. Lifshey for his good work as Chairman of the Hanging Committee.

The ladies, of whom there were a large number present, received handsome silver hat pins through Mr. Hoyt's generosity in turning over the proceeds of the sale of his demonstration pictures.

The banquet is quite the most popular meeting of the whole session and was a huge success.

FRIDAY MORNING, MAY 9.

*Election of Officers.*

The nominating committee put up for election:

*For President:* H. A. Bliss, Buffalo.

*First Vice-President:* Carl K. Frey, Utica.

*Second Vice-President:* S. H. Lifshey, Brooklyn.

*Secretary:* H. D. Beach, Buffalo.

*Treasurer:* Al. Lloyd, Amsterdam.

The ticket was voted unanimously with acclamation.

Votes of thanks were then accorded to the Metropolitan Life Insurance Company for the use of their assembly hall, the Copyright League of America for its work on behalf of photographic copyright and to the photographic press for its help in publicity matters. The meeting was then adjourned for another year.

## PROFESSIONAL PHOTOGRAPHERS' SOCIETY OF PENNSYLVANIA.

THE following letter is addressed by President Ryland Phillips to the photographers of Pennsylvania, Delaware, Maryland, New Jersey, District of Columbia—and all others interested:

Now to begin with. You are coming to the annual meeting, of course. You cannot afford to stay away. Why? Because the print proposition for this show is a "brand new" one, and you must try your hand with the print collector, the publisher and the calendar man.

Then you want to see and hear the lecture on skylights, which has taken two years to prepare. There are about twenty-five of the best photographers in this country represented in the collection of slides; also several slides from the camera of R. Dührkoop, of Hamburg, Germany. Each contributer has sent a series which represents his method of lighting and shows a copy of the finished print as it is turned out to the customer. The Philadelphia studios are thrown open to you one afternoon. You can take your pick and be assured of a welcome.

Mr. G. W. Harris, of Washington, D. C., will head a discussion on business system and few men know as much on this subject as Mr. Harris.

You cannot afford to miss the demonstration in Goldensky's studio, for which you get a ticket on receipt of your membership fee.

Can you think of a stronger combination of men working in one studio than the Big Three we have been able to arrange for—A. F. Bradley, Dudley Hoyt, and Pirie MacDonald, of New York? Can you beat it for a state

society meeting? Remember this demonstration takes place in one of the most beautiful of modern studios—conceived and built by that master in photography you all know — Elias Goldensky.

No man who wishes to make better photographs can afford to miss being at one of these demonstrations.

Then there is the banquet. Of course, no one is coming to Philadelphia because of the food; but Mr. Lukes, of the Walton, assures us that we will all feel satisfied after getting through with the menu.

You are a photographer, and all photographers are looking for a chance to get a market for their work and do not intend to be left. The Pictorial and Illustrative Class (three prints any size, framed or unframed) has been introduced at this meeting because the Executive Committee feels that there is a chance for the photographer to fill in his spare moments on work that the publisher, the advertiser and the calendar man would be glad to purchase if he could see it.

In talking with the representatives of houses in the East where such work is wanted, your executive has found that they are eager for the prints, and we propose to bring the producer and purchaser together in this manner.

Every man has an equal chance with every other man. No entrance fee is to be charged; only a nominal fee of 15 per cent. is to be charged for the sale of all prints.

There are one or two things to mention: You should copyright all prints entered to safeguard them from reproduction; you must put a price on sale of prints, and another price for the absolute purchase if you sell negatives, prints and all future rights to the same.

There will be an attendant in charge of the exhibits at all times, and all sales must be transacted through him. No prints will be delivered to purchasers until after the close of the convention.

If I have not made this plain to you, drop a postal to Mr. W. H. Rau, Thirteenth and Chestnut Streets, Philadelphia, and you will yet a prompt reply.

No prints will be received after April 28. Prints are to be shipped to Mr. W. H. Rau, express prepaid.

Of course you are coming: Think it over. If not sure, say to yourself: "I'll take the stuff down that will pay all my expenses. I cannot afford to miss a chance to get this market for my wares, even if I could afford to miss all the other good things at the Pennsylvania Annual Meeting.

Hoping to see you all on May 4th, 5th, and 6th, I am,

Yours fraternally,

RYLAND PHILLIPS,
Pres. P. P. S. of Penna.

## PIFFLE.

UNDER the above title, "The Walrus" contributes to *Photography* every week the most entertaining page of comments appearing in the photographic press. The following caricature was called forth by a fulsome article in a woman's magazine. The gentleman in question is American by birth only. He lives in London most of the time, and made his name there.—ED. W. P. M.

Any photographer who fancies himself and his work would soon have the last trace of conceit wiped out of him if he only read an article I have just waded through in one of the magazines devoted to the fair sex. It is

supposed to be a description of the work and aims of an American photographer. His name is quite familiar to all of us, and out of respect for him I will suppress it; for I cannot believe that he would approve anyone plastering him all over several inches thick with butter, and such poor butter at that. If anyone wrote such twaddle about me I should wait for him with a club.

We are first of all treated to some high-faluting remarks on photography in general. Here is a sample: "The farther from focus the nearer to art, said the photographer, and found himself dealing with atmospheres." If this means anything, which I doubt, it implies that the more fuzzy the print the more likely it is to be a work of art; and that only by fuzzygraphs can you suggest atmosphere. How easy it would be for us all to be artistic and atmospheric if this were true. Fortunately, it isn't. Moreover, this is not the secret by which the American photographer worked such wonders. The real secret was his long and laborious training in art. He went to Paris to study painting, and spent his time wandering about looking at people and things without taking a single lesson. Having thus mastered the whole art of painting, he spent a couple of sessions in an art school in America doing stencil work and pottery. For some unexplained reason this gave a Japanese character to his work, but this he modified by spending his spare time in Chinese quarters of American towns. Being by this time fully trained in all pertaining to photography, he proceeded to produce those masterpieces which have caused the writer of the magazine article to cough up adulatory adjectives till he is black in the face. We are given an idea of the ready ability to produce photographic masterpieces bestowed by such a preliminary training as that indicated, for we are told that the American Colossus "will wait all day to catch a particular effect; he will chase the angle of a sunbeam through the twelve hours, and wander round a building for a week in order to find an aspect that pleases him." As a result of this Job-like patience, "he has to discard nine out of every ten of his negatives." One would have thought that anyone who had studied painting by cavorting around Paris would have known enough about the angles of sunbeams to save him from beginning to chase them in the morning when he wanted the evening angle.

We are also invited to admire the "inspired thoroughness"of the American gentleman which "enables him never to mix the sixteen different solutions necessary for developing an autochrome plate." Why is it more thorough to let someone else mix them for him? And why use sixteen solutions when six will do? Perhaps the word "mix" is used in the sense of "confuse;" but even then all that is wanted is to letter the different solutions, in which case a moderately educated chimpanzee could avoid confusion.

But the most astounding information is that given about the gentleman's home surroundings, which are supposed to be in harmony with his thoughts, and also his personal appearance. The front door of the house and the flagstones in the hall are described as though they had been specially created by the photographer for the purpose of harmonizing with his mental outlook, whereas they are common to all the other houses in a long row, and existed long before the American opened his hazel eyes on an indifferent world. His sitting room is "a kingdom of brown and green" to act as a background for the "ruddy brown color scheme" of the gentleman himself. Even the teacups, and the rolls, and the cakes are all designed as part of the whole harmo-

nious color scheme, and no doubt the very milk was obtained from brown cows in green meadows, so as to follow suit. In fact, so overwhelmed was the gushing interviewer with the American gentleman's photographs, autochromes, teacakes, ruddy hair, flagstones, art training, and front door, that he seems to have had some feeble idea of becoming a great master himself. He remarks: "When a company of soldiers in white jackets marches by, making a reflected light on the floor of the street outside, you long instantly to photograph them." Poor chap. No doubt he thought he would get a wonderful result. We all know what it would have been like. The soldiers would have been blurred by movement, the near ones would have appeared as giants and the distant ones as midgets, the "floor of the street" would have been a dingy horror, there would have appeared as prominent objects in the composition the dust cart over the way, several ugly lamp-posts, a policeman, forty mongrel dogs, half a cab horse, six slatternly servant maids leaning out of six ugly windows, and a fat woman arguing with the rate collector.

I can only repeat that if an interviewer slobbered a lot of margarine over me in this ghastly way I should arise and slay him; and in case anyone is meditating a visit to me for the purpose of writing an article for a ladies' magazine, I will give him a few facts to go on with, so that he can keep at a safe distance. There are two patches of green paint on the front door to match my eyes, and the linoleum in the hall once had a pattern on it that matched my second best pajamas. In order to harmonize with my massive head the walls of my sitting room are bare in parts, while the rest is colored a dingy brown with gray streaks. I never allow cabbage to be served in the dining room unless it is in tone with the green dado, and all joints of meat must match the chiffonier. I acquired my art training by sitting for two hours on the steps of the National Gallery, while my sense of composition was quickened by studying the language of the London cabman. My knowledge of photography was picked up by a long series of attendances at whist drives and smoking concerts promoted only by those societies that are affiliated to the R. P. S. My inspired thoroughness in regard to technical details is such that I can nearly always determine at a glance which is the tripod and which the dark slide of the most complicated camera. I never expose a plate rashly. I invariably devote ten years to the study of every subject, walking all round it ten times a day, until I fully realize that it is not worth an exposure. Then I start on something else. My tastes have a strong Russo-German tendency, with a dash of Siamese acquired by nursing twins. I weigh nearly twelve stone, have a punching force of 2000 pounds, and can put a bullet through quite a little man at 400 yards. I am at home on Tuesdays.

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*Flower Photography.* Mr. Seymour, lecturing to the Cleveland Camera Club, said that the secret of his success in obtaining true tone values lay in the exposure. He advocated full exposure for the shadows, and developing until detail could be seen in the high-lights by examining the negative by transmitted light. He put no faith in color filters for that class of work, and stated that in many cases such filters seemed to deprive the result of half-tone. He had no sympathy for time development—his practice was to develop until there was sufficient detail in the high-lights, and as soon as this was obtained he immediately plunged the plate into the fixing bath.

## PRINTING DODGES.

BY F. A. NIMS.

I DO not mean "dodge your printing."

Not long since, while printing some panoramic pictures, one of the vignettes slipped on the frame, and before it was discovered there was a white streak between the third and fourth sections; but I did not consign it to the scrap box. I finished the printing and rolled each end into separate rolls, picture side out, until I had the white streak in the centre; then covered the two rolls with black cloth, folding the ends at the streak, took it into a subdued light, and gave it a rolling motion as I held it in my hands, and soon had the part in the sky tinted down to the same tone as the print. I then covered up the sky portion and proceeded in the same manner with the balance, and while this was tedious, I finally succeeded in getting down with the rest, and thus saved the print.

At another time, the lining of the inside of one of the roll boxes on the printing frame cracked at the hinged joint, letting the light strike the paper and making a black line across its width. I continued printing the picture, and when ready to tone, I wet the print thoroughly, laid a piece of glass under the part where the black line was, and, with a weak solution of ferricyanide of potassium (red prussiate of potash) and hypo, with the aid of a sable hair brush, slowly painted the line, occasionally holding the picture under the tap to prevent spreading, and entirely removed the line.

This operation must be done very carefully, keeping a close watch on the washing away of the silver, frequently washing under the tap to prevent its going too far and thus ruining the whole print, because it cannot be recovered by shading down.

When a black line occurs in the medium or darker portions of the print, it can be removed by laying the print face up on a table, covering all except the part to be "doctored," lay a knitting needle, or, if wide enough, a pencil or brush handle, over the line and let it shade down to the required depth. This, of course, must be done in a subdued light and before washing.

## METHODS AND FORMULÆ.

*Poison Preventive.* Mr. C. F. Becker, an American Aristotype representative in New York, writes that he has a formula for a solution which may be applied to the hands before toning or developing, and will be found to be a complete preventive against the action of such poisonous chemicals as are often used for developing and toning solutions, and as it is both simple and inexpensive, it should be in the hands of every operator and printer. Mr. B. says:

"To make the preventive, take a one quart wide-mouth bottle, place in the same two ounces of paraffine which has been shaved fine, and add to this one pint of benzine. After the paraffine is thoroughly dissolved the solution is ready for use and will keep indefinitely. Before toning apply the solution to the hands very thoroughly rubbing it into the pores of the skin and in and about the cuticle of the finger nails as thoroughly as possible. In a moment this will be dried sufficiently for all practical

purposes. It will be found that the solutions and ordinary toning baths will not affect this preventive in any way, and that one is perfectly safe in depending on it for protection. After the toning is completed and you desire to remove the preventive from the hands, it is done by the very simple method of washing in hot water with an ample supply of good soap."

*Photographing Floral Pieces.* The photographer is frequently called upon to photograph floral pieces, and sometimes experiences difficulty in placing them in or having them remain in the correct position during the exposure. The following is a plan employed by a well-known operator:

Take a 6 by 8 background frame and cover it with netting the same as used for the ordinary window screen.

The floral pieces can be easily attached to this netting by a few pieces of fine wire, and in cases where long-stemmed flowers do not stand up properly the floral piece may be fastened to the screen upside down.

To avoid deep shadows, place a black background two or three feet back of the wire screen, as it will then be too far back to cast a shadow.

*Abrading the Film by Friction with Alcohol.* It is general knowledge that strong alcohol, if rubbed on the surface of a gelatino-bromide negative with a cloth, or the tip of a finger, will cut into the film and produce the effect of local reduction. In the September number of *Photo Studia*, M. Albert de Crosnes emphasizes the value of wooden points or stumps covered with tow, as a means of frictioning the film with alcohol, especially when the aim is rather fine retouching. The tow itself is rather abrasive, and the abrasive effect may be increased by mixing tripoli with the alcohol.

*Lantern Slides for Writing, Tracing, or Sketching.* The lanternist has frequent occasion for prepared glasses on which he can trace transparent lines by ploughing through a black ground with a fine point, or glasses so prepared that fine writing or sketching with Indian ink is practicable; the former may be prepared by flowing the glass with a varnish composed of four parts of bitumen, sixteen of benzol, and one part of lampblack, this being well ground or rubbed down. Clear glasses, for sketches or writing with Indian ink, can be prepared by coating the plates with plain collodion, immersing in water as soon as the film has set, and finally soaking in a hot solution of gelatine one to thirty of water. If the plates are set up to drain while they are hot, the collodion films will retain just the right amount of gelatine to give a surface suitable for writing on with Indian ink. A finely-cut quill pen is more suitable than a steel pen.

*Varnishing the Negative.* The importance of varnishing as a protection against the absorption of chemicals from printing-out papers can scarcely be overstated, to say nothing of the influence of damp and other adverse influences. Yet there are amateurs who never or seldom varnish a negative. Herr Frank, in the *Wiener Mitteilungen*, cautions the amateur against neglect in the matter of varnishing, but he reminds his readers that all work of the nature of intensification or reduction must be finished before the negative is varnished, and, moreover, care must be taken that the gelatine film is thoroughly dry before being submitted to that final warming operation which is desirable to prevent the "chilling" or clouding of a spirit varnish. The final warming may be before the fire, over a gas flame, or over a spirit lamp, and the plate should be heated until it just

feels comfortable to the hand when the glass side is laid on the back of the hand. The plate is now held level, and the film side is flooded with the varnish, the excess being poured back into the bottle from one corner of the plate; after which the negative is again exposed to the source of heat, but the corner from which the varnish was drained off should be kept low until the varnish has set. A suitable varnish is prepared by dissolving 10 grams of sandarac in 75 c.c. of alcohol and adding ½ c.c. of castor oil.

*Carbon printing* was demonstrated before the Chiswick Camera Club by Messrs. Coysh and Hopkins, when the former said that placed in a calcium storage tube, such as was used for platinum paper, the tissue in a sensitized state would keep in good condition for several months. He had developed tissue that had been printed and stored in this way for quite a year. A very effective picture could be made by first preparing a thin, washed-out-looking carbon transparency on clear glass, placing against the film side of this a piece of tinted paper, and framing both together, with a bit of backing board pressed well into contact in the ordinary way. The effect, especially with architectural subjects, was fine, and could be varied to almost any extent by the use of papers of different colors and textures.

*Roll Film Coated on Both Sides with Emulsion.* A German publication refers to a revival of Warnerke's system of coating both sides of the roll film with emulsion; this being an admirable preventive of halation, and, moreover, the system acts in a partially automatic way, as a preventive of mischief from specks or defects. In addition there is the advantage of non-curling.

## TONED DEVELOPMENT PRINTS.

ONE of the most valuable "tips" in the revised edition of the little booklet of the Defender Photo Supply Co., the *Tipster*, which is now in press, is the formula for a new metol-hydro-acetate developer. The formula as given is to be used in connection with the Defender Company's Argo gaslight paper, but we have no doubt that canny photographers will modify it to meet their own requirements. In an explanatory leaflet the Defender Company says of this new developer:

"We give herewith the formula for an acetate developer for use with our Argo gaslight paper. Our chemists, after extensive experiments, have found it to be particularly adapted to Argo, and it is used almost exclusively in our own operating room. The formula follows:

*Metol-hydro-acetate Developer.*

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|---|---|
| Water | 16 ounces. |
| Metol | 15 grains. |
| Hydroquinone | 15 grains. |
| Sulphite of soda | 280 grains. |
| Acetate of soda | 560 grains. |

Using the above metol-hydro-acetate developer, almost any tone can be secured by the addition of other chemicals. For those who have decided preferences in this respect, we append the following list of tones and the way to get them:

1. For olive-gray tones, add 8 minims bromide and 15 grains hydro to 16 ounces of developer.
2. For gray-olive tones, add 8 minims bromide to 16 ounces developer.
3. For olive tones, add 12 minims bromide to 16 ounces developer.
4. For deep-olive tones, add 8 minims bromide and 8 grains carbonate soda to 16 ounces developer.
5. For brown-olive tones, add 8 minims bromide and 8 grains metol to 16 ounces of developer.
6. For yellow-olive tones, add 8 minims bromide, 15 grains carbonate soda, 15 grains hydro and 8 grains metol to 16 ounces developer.

# TRADE NOTES.

MR. F. HARRY HALL, manager of the Photographic Department of the Berlin Aniline Works, has just returned from an extensive Western trip, and reports that business in that section is better than he has ever known it. The dealers are cheerfully optimistic and are placing unusually large orders. With the Payne Tariff Bill out of the way by the early part of June, it would look as if we might enjoy some of the long-looked-for prosperity.

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*The Twin Books of Photography* which the Ansco Company offer to send gratis are a valuable acquisition to anyone interested in photography. In fact, they would be worth having even if the Ansco Company were to charge what it must have cost them to prepare and print the two books mentioned, and they must have cost quite a little, for they are gotten up in the usual style in which that Company puts out all its literature. The Twins consist of one volume entitled "The Positive of Photography," dealing exhaustively with Cyko, and that means that the information is equally applicable to all developing papers of Cyko quality, and "The Negative of Photography," which tells in very simple words all that is necessary for the photographer to know in making film photographs, from the loading of the camera to the finished negative. The *Twin Books* are in reality, as claimed by the Ansco Company in their advertisements, a complete photographic library which can he held in one hand, or may be conveniently carried in the pocket.

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THE VOIGHTLANDER REFLEX CAMERA. The progress of photography in fine art has led to higher requirements in the apparatus, and preference given to lenses of focal length that correspond with the visual distance of the human eye. Lenses of less focal length than the normal human eye vision give exaggerated perspective and apparent distortion. In cameras of ordinary construction one usually encounters difficulty in selecting a long focus lens corresponding to the size of the plate. The depth of the lens is dependent on the focal length and illumination, and by increasing the two latter the depth will be diminished in proportion. The lens which answers to the above rules, will have, in most cases, very little depth, so by estimating the focal distances a mistake results in having pictures out of focus. The ordinary reflecting finder is also insufficient with long focus lenses. The angle of image has to be considerably smaller as in the usual type of apparatus, on the other hand, it has to be considered. That this smaller circle of view will be fully utilized, so that it will be possible to give the plate the necessary limitation which is afterward required for the finished picture. On account of the extraordinary reduction of view and the finder not being sufficiently identical with the image thrown on the screen, it is impossible to utilize to perfection the ordinary type of finder arrangements. These points make the use of other camera constructions desirable, and one of the most perfect types of these is the Voightlander Heliar Reflex camera. This camera is made by the manufacturers, Voightlander & Sohn, 225 Fifth Avenue, New York City, in five sizes, including the Stereo size, 45 x 107 mm. More particulars are contained in catalog 206, which will be mailed free of charge.

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BURKE & JAMES, of Chicago, have on the market an ingenious print washer that keeps an even steady circulation of water that is so necessary if prints are to be thoroughly cleared of hypo. This does not always happen with running water that simply flows in and out at top of the dish without changing the body of the water. The Ingento washer has the peculiar quality of separating the prints from each other, and keeps each one in separate motion with plenty of fresh water surrounding it. There is no possibility of the prints clogging, and a batch can be safely left to wash while other work is attended to. The large professional sized washer, twenty-four inches in diameter, costs six dollars. It will do your work well and save a considerable amount of your time.

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THE MITTINEAGUE PAPER COMPANY manufacture a line of photographic mounting papers that will help the photographer very considerably in his endeavor to get better prices. The public is always ready to pay a good price for something that has an appearance of good taste and exclusiveness. Break away from the stiff conventional card mounts and try some of the Old Stratford, Old Cloister, or Rhododendron cover papers. They come in a variety of colors, thicknesses and textures, that can be used very effectively, and you can get a better price for your work when it is tastefully mounted. Another studio refinement that pays well indirectly is good stationery; it costs more perhaps, but it carries your name and is an advertisement for your studio. See that it is a good one. If you cannot see samples of the Mittineague papers at your dealers, write to the company at Mittineague, Mass.

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MR. B. FRANK PUFFER, the well-known photographer of Fifth Avenue, New York, and Palm Beach, Fla., gave an interesting demonstration, at the recent meeting of the New York Photographers' Society, of the possibilities of portraiture by artificial light. Using an Aristo lamp and a Cooke lens working at f/5.6, he made some capital negatives with exposures as short as a half second.

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A NEW NEPERA. The Nepera Division of the Eastman Kodak Co., has just put on the market a new Nepera called Royal Pure White. It has all the breadth and softness of India tint Royal Nepera with the added sparkle that a pure white stock gives to the high lights. When sepia toned by redevelopment it assumes a richness of tone not found in any other paper, and the prints lie flat.

# WILSON'S PHOTOGRAPHIC MAGAZINE

A MONTHLY MAGAZINE FOR PRACTICAL PHOTOGRAPHERS

Founded in 1864 by EDWARD L. WILSON
L. W. WILSON, Publisher and Proprietor
T. DIXON TENNANT, Editor

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## EDITOR'S TABLE.

A UNIQUE EVENT. As these lines are being written that grand old man of photography, George G. Rockwood, dean of Professional Photographers in America, is celebrating his seventy-seventh birthday and the fiftieth anniversary of his entrance into professional photography. Notwithstanding the fact that Dr. Rockwood has long passed the Psalmist's age limit of threescore and ten, his fiftieth year in photography finds him actively engaged in his profession, holding his own on Fifth Avenue, New York, doing work quite up to his own standard set many years ago. Time has dealt kindly with him, and though his hair is white, his kindly blue eyes have their old-time twinkle and his greeting is as cheery as when we first knew him.

Mr. Rockwood is as keenly interested in his profession as its newest member. He attended the various meetings of the P. P. S. of N. Y. a few days ago, and demonstrated before its members a method of applying colored transparencies for stained glass windows, a process capable of a wide commercial application. Few men have enjoyed a wider acquaintance of illustrious men or photographed more celebrities than George G. Rockwood—may his shadow never grow less.

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MR. A. B. STEBBINS, of Canisteo, N. Y., who it will be remembered captured the fifty dollar prize at the 1908 New York Convention for his cement sink, sends us the following idea for a new color process that is worth experimenting with.

EDITOR WILSON'S PHOTOGRAPHIC MAGAZINE.

DEAR SIR: I would suggest that you call the attention of experimenters in color photography to the possibility of making screen plates by the burnt-in enamel process; for instance, finely powdered colored glass of a very fusible nature could be melted on the plate or ceramic colors could be printed on the plate and fused. I think either of the above processes would make a screen that would not affect the emulsion or be affected by the photographic chemicals.

Most respectfully,
A. B. STEBBINS.

OUR esteemed contemporary *The British Journal of Photography* issued as its two thousand five hundred and fifty-first number a specially edited and illustrated and much enlarged issue called the Colonial and Foreign Issue. Its one hundred and twelve pages contained an exhaustive review of all the latest offerings in photographic apparatus. The advertisements cover many pages and are exceedingly interesting. This special issue going into every civilized country on the face of the globe is a tribute to Great Britian's alertness in pushing for business in the most remote corners of the earth. We congratulate the publishers on the wonderful number they have put out.

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VOLUMES six and seven of *The Self Instructing Library of Practical Photography* have just been received—they live very thoroughly up to their name. Volume six is devoted to studio portraiture and studio system. It is a book of some five hundred and forty-five pages. Every known method of lighting is explained and demonstrated. The illustrations are from the best studios in the country. Diagrams and interiors of studios are shown in profusion. The latter half of this volume deals with studio system, and has to be read to be appreciated. Book-keeping, advertising, buying, copyrighting, insurance, everything connected with the proper running of a studio as a business is gone into at great length.

Volume seven, on carbon printing, commercial, scientific, and color photography, is not only the greatest in bulk—running to six hundred and sixty pages, but is the best book of the seven volumes so far issued. There is not an item of commerccial photography that is not touched upon and explained. Every kind of work the photographer is likely to be called upon to do will be found described in this volume in a capable and helpful manner. Photographers who have not seen any volumes of this library would do well to write for a prospectus and look up volumes six and seven, either of them contains information worth the price of the whole library.

By S. H. Lifshey, Brooklyn, N. Y.

# WILSON'S PHOTOGRAPHIC MAGAZINE

FOUNDED IN 1864 BY EDWARD L. WILSON

VOL. XLVI JUNE, 1909 No. 630

## THE PHOTOGRAPHERS' ASSOCIATION OF AMERICA,

### Rochester, July 19 to 24, 1909.

THE Twenty-ninth Convention of the Photographers' Association of America to be held in the city of Rochester promises to be in many respects a memorable gathering.

The city of Rochester in itself has a peculiar attraction for the photographer, it being easily the greatest photographic manufacturing city in the world. The home of the Eastman Kodak Company, the Bausch and Lomb Optical Company and many other large photographic interests, which are to be thrown open to the visiting photographers. The opportunity to visit these model factories will be taken by many photographers who do not usually attend conventions.

The meetings have been extended to cover the entire week beginning Monday, July 19th and ending on Saturday the 24th; even then the time is not too much for the series of interesting events that President Barrows has arranged.

The class instruction plan which proved such a great success at the last convention will be repeated in a more amplified form. The classes will be conducted by some of the greatest photographers in the country. This feature of the convention is alone worth many times the membership dues. Money could not buy the information that is placed at your disposal as members of the Association.

Nor is the technical side only being attended to. Arrangements are being made for an art lecture and criticisms—the photograph must be an artistic arrangement of lines and space as well as a scientific management of light and shadow.

The most noteworthy thing about this convention will be the attendance for the first time of accredited delegates from the various state associations. President Barrows believes that the time has arrived when a closer union between the state and national associations is not only desirable but necessary for the best interests of the profession. The various state associations are being invited to send delegates to the National meeting so that a plan whereby a close working connection between the various associations through the "National" can be formulated and offered for discussion.

Mr. Barrows does not look to have the plan arranged and put through in the first year; it may take two, three, or five years before a thoroughly comprehensive and harmonious plan can be evolved, but he realizes that a start has

to be made if anything is to be accomplished. In this he deserves and needs the support of every photographer in the country who is anxious to see his profession put on a broader and bigger basis. The need of a stronger organization was demonstrated in the passing of the new copyright law, when the photographers' interests were over-ridden by powerful newspaper interests.

The picture exhibit is to be entirely complimentary this year and already a splendid collection of pictures by our best workers is assured. The only rivalry will be a friendly one between states—the pictures are to be hung by states.

The hundred dollar prize for the best idea adapted to studio practice is again offered, and is sure to bring many useful ideas to the front.

The entertainments are being arranged on a most lavish scale and a thoroughly enjoyable time is guaranteed to everyone. Make sure now that you are going to be in Rochester, July 19–24. If you are not a member of the association you ought to be and five dollars will cover your initiation fee and dues for one year.

## SENSITIZING JAPANESE PAPER FOR PRINTING OUT OR DEVELOPMENT.

BY A. J. JARMAN.

PHOTOGRAPHS today are produced upon many kinds of material, most of them are turned to commercial account. There is one kind of paper, however, that will yield beautiful photographs that is not generally known, except to those who have worked the carbon process, a paper of a delicate cream color known as Japanese paper. This paper is well suited for photographic work, no matter whether it is used as a transfer paper for carbon work, prepared and sensitized, or as a developed paper. Prints made upon this material, by direct printing, are scarcely distinguishable from carbon prints.

Sheets of different thicknesses, about 20 inches by 30 inches can be obtained and prepared in the following way:

Salting the paper, make up the following albumin salting solution; be sure and use distilled water in the making up process:

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|---|---|
| Chloride of ammonium . . . | 120 grains. |
| Chloride of sodium . . . . | 120 grains. |
| Distilled water . . . . . | 30 ounces. |

Shake the mixture until the salts are dissolved; now make up the following:

| | |
|---|---|
| The whites of three eggs equal to . | 3 ounces. |
| Distilled water . . . . . | 3 ounces. |

Beat this mixture into a well broken-up mass for five minutes with a silver-plated dinner fork (the ordinary tin whisk egg-beater must not be used for this work). When the mass has been well beaten pour it into the salt mixture, then place the hand over the wide-mouthed bottle and shake the whole vigorously, so as to secure thorough incorporation. Allow this mixture to stand for twelve hours, then it will filter freely through a double thickness of wetted cheesecloth, in the first place, and secondly through a tuft of wetted absorbent cotton; arrange the filtering so that no air bells are found. The salted mixture must now be poured into a clean tray, and the sheets of paper carefully floated upon the surface for three minutes. Occasionally lift the paper by one corner, to ascertain that no air

bells are formed; if they are, use a quill camel's hair brush, dipped into the salting mixture and wipe over the spot, then return the folded paper to the solution. At the end of three minutes lift the paper from the solution and let it drain cornerwise over a glass funnel, where it must be suspended by two clean wood clips upon a stretched line to dry, away from dust and dirt.

When the paper has become thoroughly dry, mark the back of the sheet with a black lead pencil; do not use the indelible ink pencil because the violet mark will penetrate the paper and spoil it. Roll the paper upon a cardboard tube, face *outward*; always using a pair of clean white cotton gloves when this is being done, so as to prevent the fingers from touching the surface. Paper thus salted will keep any length of time before sensitizing.

Having a number of sheets prepared make up the sensitizing solution as follows:

| | |
|---|---|
| Distilled water . . . . . | 30 ounces. |
| Recrystallized nitrate of silver . | 4 ounces. |
| Citric acid (crystals) . . . . | 1 ounce. |

The nitrate of silver can be dissolved in twenty ounces of water, the citric acid in ten ounces; then add the acid solution to the nitrate of silver, shake the mixture well; then filter it through a tuft of absorbent cotton, in a glass funnel. The sensitizing solution is now ready for use.

### *Sensitizing the Paper.*

Pour the acid silver solution into a clean porcelain or glass tray, in a room lighted by yellow light only; place upon the surface of the liquid one of the sheets of salted paper, the salted surface upon the liquid, holding the paper by opposite corners, so as to allow the middle to touch the liquid first, then lower the ends. By this means no air bells will be found. If the paper has a tendency to lift or cockle, place a clean wood clip upon that part, for a short time, when the sheet will lie flat. Allow the paper to remain upon the liquid for three minutes, or three and a half, when it may be lifted and drained from one corner; allow the drippings of silver solution to fall into a glass funnel, placed in a wide-mouthed bottle. These drippings can be returned to the original solution and filtered again for use. As soon as the paper is perfectly dry it may be rolled up or cut into the sizes required. Always make a light lead-pencil mark upon the back of each sheet, otherwise it will be difficult to tell the sensitized surface.

The sensitizing solution will become slightly discolored after use; this will not affect the sensitizing qualities. The paper prepared as above will keep well for many weeks. The Japanese vellum is an excellent paper to use. The resultant image can scarcely be distinguished from a photogravure.

### *Preparing the Emulsion for Developing Paper.*

The formula here given will be found to answer well. It is not extra rapid, but gives a brilliant, clean image.

| | |
|---|---|
| Heinrich's hard gelatine . . . | 2 ounces. |
| Distilled water . . . . . | 10 ounces. |
| Chloride of ammonium (C. P.) . | 108 grains. |

Place this in a clean stoneware crock, allow it to soak for half an hour, then place the crock into a saucepan with cold water about three inches deep; bring the water to boiling point; stir the gelatine mixture with a strip of glass, add these to (under a ruby light) the following, heated to 120° F. in a clean glass flask.

| | |
|---|---|
| Distilled water . . . . . | 10 ounces. |
| Nitrate of silver . . . . . | 252 grains. |
| Citric acid (powdered) . . . | 30 grains. |

This must be added slowly, the mixture being well stirred during the addition. As soon as the mixture is complete, remove the crock from the saucepan, stand it aside to become cooled; when quite cold and the emulsion is well set, it must be broken up and washed in the following manner:

Under a ruby light, place a piece of the emulsion in the centre of a folded piece of white mosquito netting, previously wetted and wrung dry; twist the netting tight with both hands until the emulsion squeezes through in shreds; let this fall into another crock of clean water. When all the emulsion has been thus treated, tie over the crock two thicknesses of washed cheesecloth; turn the crock over, so that all the water drains off; repeat this washing with the fresh water ten or twelve times, allowing a little time to elapse between each washing. As soon as the last washing has taken place, let the emulsion drain for half an hour; now place the crock with its contents into hot water; when melted, add one ounce of pure photographic alcohol (no other kind), stir the mixture well and filter through absorbent cotton pressed into the small end of a clean kerosene lamp-glass, over which has been tied a double thickness of cheesecloth; allow this to filter into a small earthenware pitcher, or milk jug, when it is ready for use. Have the paper cut to suitable sizes, say eight inches wide and the length of the sheet.

Pour the hot emulsion into a clean, warm porcelain tray, clip the ends of the paper with some light wood strips and the well-known photo-wood clips; then hold the paper in such a position that it is shaped like the letter J; allow the lower end to touch the emulsion; then by raising the left hand and lowering the right at the same time the surface of the paper becomes evenly coated with the emulsion; return the paper over the emulsion from left to right, drain the excess from one corner, so that no air bubbles are found; then wave the coated sheet in the air until the emulsion has become set; then place it in a clean light-tight closet to dry. When a number of sheets have been so coated, and the emulsion used up, allow them to dry, when they may be cut to the sizes required. Any of the modern developers for gaslight papers may be used for development. The following one answers well:

| | |
|---|---|
| Hot distilled water | 15 ounces. |
| Metol | 20 grains. |
| Hydrochinone | 40 grains. |

Shake the mixture well, then add

| | |
|---|---|
| Sulphite of soda (granulated) | 140 grains. |

Let this dissolve, then add

| | |
|---|---|
| Carbonate of soda (granulated) | 120 grains. |
| Cold water | 17 ounces. |

also thirty to forty drops of a 10 per cent. solution of potassium bromide, made by dissolving half an ounce of potassium bromide in 5 ounces of water. The fixing bath being made up as follows:

| | |
|---|---|
| Hyposulphite of soda | 6 ounces. |
| Water | 20 ounces. |

Add this to the following mixture:

| | |
|---|---|
| Common alum | 2 drachms. |
| Water | 10 ounces. |
| Sulphite of soda | ½ ounce. |
| Acetic acid | ½ ounce. |

The prints must be dipped into an acid solution direct from the developer before placing into the fixing bath, or stains will appear, and the fixing bath become spoiled; after fixing, the prints must be well washed, and dried or mounted wet according to taste.

Thirty grains of hydrochinone and thirty grains of metol will make the developer more energetic and give a different color.

# LUMIÈRE COLOR PROCESS SIMPLIFIED.*

ANYONE who has seen a Lumière Autochrome photograph, which is a direct positive on glass in the exact colors of nature, feels that photography has made an advance which marks even a greater step than the advance from wet plates to dry plates. Many photographers, both amateur and professional, after having tried out the new process most carefully have given it up in disgust; first, because the directions entail such absolute care; second, because the percentage of good results are so exceedingly low; and third, because the process was exceedingly expensive and in no instance could it be determined with anything like a measurable accuracy that the result would be successful. The original directions which came with the autochrome plates indicated exceedingly complex methods, and the first step was a development for two and one-half minutes in absolute darkness and it was impossible to judge, under the circumstances, what was taking place. Lately an improvement has been made whereby a complex table is used in a faint light, and, after a given number of seconds, if the image appears the developer is strengthened. This improvement of the use of light offsets to a large degree the previous complex methods. I give an abstract of the various directions given for the development of an Autochrome plate, which is as follows:

1. Development with a weak pyro-ammonia solution; (2) reversing solution (3) developing with dianol; (4) destroying the developer; (5) intensifying with pyro and silver nitrate; (6) clearing the intensifier; (7) fixing; (8) varnishing. In between all of these manipulations the plate is washed very carefully and the operation takes, after one has been accustomed to the details, about twenty minutes for each plate.

To start with, the plate may be under-developed or over-developed, and little or no remedy is at hand in either case, excepting the pyro and silver nitrate intensifier. The large number of manipulations, preceded in each case by washing, tend to weaken the film so that scratches or abrasions are very likely to occur; then, again, the whole process is based upon the supposed correct exposure and as there is no unit of measure for this, it is exceedingly difficult to know how long to expose or what to do in case of under or over exposure.

These are a few of the reasons why so many men have given up the use of Autochrome photography, for, in the first instance, the plates are decidedly expensive and in the second instance, the percentage of good results is so small, owing to the complex directions, that no one but a rich man can really afford to dabble with this process. I, therefore, have set to work to see if I could not simplify the process and obtain just as good results as the best results obtained by Lumière, and, in this instance, a knowledge of chemistry stood me in good stead, for upon studying the entire system of development it was simple enough to determine why certain materials were recommended.

In the first place, I could see no reason for the use of pyro ammonia in a weak solution and then reversing the plate and redeveloping in dianol. I must not be misunderstood at this step, for I have no intention of saying that the directions as given by the Lumières do not produce good results; in fact,

* An abstract of a lecture before the New York Camera Club, by Mr. Maximilian Toch.

they produce very good results in the hands of an experienced operator, but there is no reason for the complex, intricate, and abstruse methods which they indicate.

Without going into the details of the various experiments that I made, I discarded the first developer and second developer of Lumière and used the ordinary metol hydrochinon to which I added a very small quantity of bromide. As I do much printing on developing papers, the developer which I generally use in my laboratory is composed of 1 ounce of metol, 1 ounce of hydrochinon, 1 pound C. P. sulphite, 1 pound C. P. carbonate of soda and 1 gallon of water. This makes my stock solution which I use for everything except lantern slide plates, but I dilute it as the case demands. This was the first developer with which I had success, and having the Autochrome light in my dark room I poured the developer on the plate, rocked it thoroughly, then turned on the light and found that in about sixty to seventy seconds my plate was thoroughly developed. With this developer I could look through the plate into the light and determine when it was sufficiently dense. If I found it was coming up too rapidly I added bromide; if I found it was coming up a little too hard I transferred the plate into a dish of plain water, rocked it, and let it develop itself, and then without washing I transfered it into a dish of reversing solution made according to the Lumière formula, 50 ounces of water, 50 grains of potassium permanganate, and 4 drams of sulphuric acid. By the way, this solution should be kept in the dark and after it is a week old it should be filtered; it then remains perfectly clear.

It is necessary when putting the plate in the reversing solution to rock it and keep it in there for three or four minutes. I will show you later an otherwise excellent color photograph which did not remain in the reversing solution long enough and shows up defects which thus can be avoided. After leaving it in this solution it should be taken out into the broad daylight, or if you develop in the night directly under the artificial light which you are using. Wash in running water until all the permanganate is washed off and then the plate should be put back into the same tray containing the original developer and developed in the light until the plate turns uniformly black. After it has turned uniformly black you look through it at the light and the chances are that the plate will be a very good autochrome picture.

I have obtained just as good results by using edinol developer reduced with seven parts of water, and on the redeveloping I have produced excellent results by using plain standard pyro such as is used in the Camera Club, but I have a distinct dislike against the pyro because it blackens the hands and finger nails, and neither edinol nor metol hydrochinon possesses this bad quality.

Here, however, comes the crucial point. After the second development which has just been described, if you find that the picture is clear and shows up all the colors truly, you wash it for two or three minutes in running water, allow it to dry and varnish it, and the picture is done. If, however, you find that it is weak and the colors are not brilliant, you intensify it, not with the messy nitrate of silver formula prescribed by the Lumières, but with simple mercuric chloride (corrosive sublimate) and bring out the strength of the intensification by means of sodium sulphite. To go into details, you take 1 ounce of corrosive sublimate and 1 ounce of potassium bromide, and you add them to a quart of water. The addition of the bromide enables you to dissolve

the mercury much more rapidly and you have a much more concentrated solution. This, in a very short time, brings out a strong and brilliant negative effect on the plate which is perfectly white; transfer to the tap and wash it for two or three minutes, then transfer to a tray in which there is a 20 per cent. solution of sodium sulphite and the picture turns black immediately and comes up much more brilliantly than it did before.

As to the question of fixing, this may be omitted if you choose. I find that fixing a Lumière plate always reduces its brilliancy, and I furthermore find that those plates which I have not fixed have been in good condition for six months. If a plate is too dense fixing bleaches out some of the denser portions and makes it more translucent. If a plate is just right I do not advise fixing, but simply advise washing and hardening in chromalum if you choose, or if the tap water is sufficiently cold no hardening will be necessary.

So summing up the operation, it consists of developing the plate, reversing the image, re-developing, and washing, and if the exposure be correct the result will be correct. Concerning the exposure there is a great deal of guess work, as up to now, to the best of my knowledge, it is impossible to say how long a Lumière plate should be exposed.

Regarding the light in the dark room, I made several experiments concerning this and find that there is no danger of fogging whatever by the new light produced through the "Virida" papers. If you have an eight-candle power incandesent lamp you can load your plates three feet from that lamp, start your development in the light, and absolutely no chance of fog will result; in fact, I have used the ordinary dark room ruby lamp and only obtained a very faint red fog when I exposed the plate too long to the light; two or three seconds exposure three feet from a weak ruby lamp is not harmful.

## HINTS ON PHOTOGRAPHING HEAVY MACHINERY.

THE preparation of large pieces of machinery for photographing is a very important part of our subject. In all Government work, which, of course, has to undergo a close inspection at the hands of officials, no painting or special preparation is permitted. The natural skin of the metal, either in its rough or finished tooled condition, must be maintained. On the other hand, where ordinary commercial jobs are concerned, many engineers make a rule to bestow a good deal of preparation on their work by painting and hand cleaning, in order that it may be rendered specially suitable for a photograph. Others, again, among whom it may be stated are some of the highest class firms, rigidly set their faces against any special painting being resorted to for photographic purposes, confining their preparation merely to a careful hand cleaning and oiling by means of waste, etc. In any case quite a variety of colors are met with, ranging from black and dark-olive green, down to red. Very often these surfaces partake of an enamelled form when cleaned up, and frequently give some trouble when a strong top light has to be utilized.

### *Preparing the Subject.*

In cases where painting is permitted, a good dark grey should be employed on such subjects as crank shafts and bright

metal objects. The paint should yield a good matt surface when viewed from the standpoint of the camera, and if the job appears patchy, very likely by waiting an hour or so until the paint be quite dry, these patches will disappear. The unhardened paint is easily removed after exposure.

If, as is very often the case, the entire surroundings have to be blocked out on the negative, a color should be chosen that will permit of the margins of the machine showing a good contrast against the white background of the final print. This applies particularly to small attachments on the outline of the machine, which will not show well unless painted a dark color.

Another very important matter when painting is performed is to make sure it is done just prior to the photograph being taken, so as to leave no opportunity for markings by the dirty hands of workmen. The lapse of a day or two often means that the job has to be repainted. In the case of inside portions of a machine being painted for the photographer the color cannot be too white, and frequently great advantage can be gained by painting portions only of a subject, so as to bring up one part from another. White paint is used for this, but much can be done also with chalk.

### *The Advantages of Chalking Machinery.*

In cases where large tools that are in daily use are concerned, painting, of course, is out of the question, but the same may be dressed up in an effective manner by means of a little chalk. First of all, the maker's name, which almost invariably will be found cast, either as a name-plate bolted on, or otherwise cast on some part of the tool, will call for attention. By chalking over the raised letters only and then by means of the ball of the forefinger softening the chalk marks down, the same will be found to stand out in bold relief, and appear very telling in the finished photograph. Other parts amenable to this treatment are the gearing wheels, springs, nuts, and any fine detail found in the dark portion of the object. It is really wonderful how the teeth of a gearing wheel may be made to show up in the finished photograph by means of careful preparation with a little chalk. A typical case may be mentioned. Since the application of electricity as a motive force to large lathes, etc., these gearing wheels form a very prominent part of the machine, and in some of the newest patterns are enclosed in casings or covers, and sometimes it is desired to photograph portions inside such casings without removing the entire cover, or at least to do so by means of the cover door being open. By chalking the parts that just appear through the open door they at once come into view, and show up well in detail in the finished photograph, otherwise they would not appear at all, being simply buried in darkness. In cases also where outlines of portions of a tool are backed up with other dark parts, and therefore do not appear with enough contrast, much may be done by chalking the edges, so that they appear with a light line against a background. The lighting of the machines has often to be taken as it is found by the photographer, yet it is often possible to counterbalance the excess of top light (a usual defect) by making the ground into a reflector, as the writer remembers doing on one occasion, by having a concrete floor whitewashed, and so obtaining the detail in a machine, the projecting top rail of which cast a shadow over it. Similarly whitewashing all round a stationary engine will do a lot in the way of helping matters. In some instances very dark

portions in large machines can be lighted by means of small electric lamps being placed so that the light is thrown on the parts it is desired to illuminate, the lamp, of course, being out of view. As a rule, such aids are but of low value, and require lengthy exposures, the light being very deceptive in its actinic value. The writer has also seen magnesium powder, with which a few grains of gunpowder were incorporated, prove of great service in lighting up hidden or dark recesses in heavy machinery; this of course requires to be burned in an open pan, simply igniting same with a smoker's vesuvian stuck in the cleft of a long stick.

If often happens that makers desire a photograph of their tools as soon as possible after they are fitted up in some new shop, and before the flooring or other parts of the surroundings are in their finished condition. When this happens it is best to block out the entire floor space in the negative and print the same with a white floor, then sun down the whole portions and tone and fix as usual, and when the print is dry, by means of a parallel ruler, draw on the face of the print flag stones by means of cross lines at their proper angles. This looks well, and after the print is carefully doctored, the same is rephotographed. By this means nasty eyesores are got rid of. As to the method of working up the face of the print, the writer hopes to refer later on.

### *Preparing Rough Castings for Photography.*

The preparation of large steel castings for the purpose of being photographed differs materially from that of ordinary finished machinery. Such pieces are often met with of great weight, in some cases running as high as forty tons, and varying in shape and dimensions after these pass through the dressing shop. They are generally photographed without any painting. In this condition the pieces are likely to appear somewhat patchy, and show an abundance of chisel marks from the hands of the dressers. In the rough casting these marks will very likely, at certain angles of lighting, present a bright silvery appearance, quite unlike the dull grey look of the rest of the piece, while in other portions large patches of darker colored metal will almost be sure to be present.

The writer knows of no better method of getting rid of these markings and eyesores than by forcibly throwing or dusting the moulder's sand on such parts as require to be doctored. In all dressing shops these castings will be found simply smothered in such sand, so there is no lack of supply. After the dry sand is forcibly thrown upon the parts the surface is gently dusted over with a little dry waste, and immediately a practiced eye will be satisfied with the improvement effected. Bright glaring chisel marks will be seen to disappear, and large patches of dark metallic appearance will show up as grey as the rest of the piece. In all rough castings, even at the stage where such leave the dressers' hands, there will be on the surface small holes or indents which appear in exaggerated form under side lighting. It is always advisable to doctor the more pronounced of them before exposing the plate. For this nothing is better than a little moulder's putty, which, when applied to fill up these little holes, may at first show up as dark dots against the light grey color of the casting; but another few handfuls of dry moulder's sand thrown forcibly on them soon make them vanish.

In nearly all marine and engineering castings there will be found large and small apertures with sharp edges. All moulders like these lines or sharp edges

to be well shown in the photograph, a great aid being to "dress" the castings beforehand with chalk, as before stated, and then the lines can be either intensified on the negative or on the print. With too much front or too low a light these apertures will often show a lack of shadow, and tend to spoil the solidity of the piece. The natural remedy is to select a better lighting, but where this cannot be done an immense amount can be put in on the print. The photographer of machines soon finds that he must use brush and air-brush in the perfection of his work.

### *Preventives of Halation.*

Halation will often be found difficult to prevent, especially when working right up against a strong light. If the subject be situated and a fixture under the worst possible conditions, it is often best to blind off the window with brown paper. This can be had in web of almost any size and shape, so as to cover all the glass, and in such cases the negative will require to be carefully treated and blocked out. Other cases where bad lights are situated at long distances in front can generally be treated in some way or other by boarding up or hanging shields from a crane, etc., so that the evil is prevented. Prevention is always better than cure, and much may be done by choosing the hour for exposure when the direct light is not present. As to backing the plate, the writer's experience is that bitumen dissolved in chloroform is the best to is employ, and when this is used the plate developed without previously removing the backing. A little practice will soon make a regular worker quite at home in developing after this method.

The working up of the print preparatory to rephotographing it is perhaps the most difficult of all operations connected with this class of work. It takes some experience to be an adept at it, but the air-brush has placed a new power in the photographer's hands, and all high-class block makers know the value to place upon such method of working up a photograph. No doubt quite a lot can be done by the brush alone, but for really high-class finish on highly glazed prints, which are so much in request for fine detail in process work, only the best results can be obtained by an expert in the use of the air-brush.

## DEFECTS IN RAW PAPER.

THE following paper describing some of the defects met with in raw papers was read before a European society of technology and contains descriptions which should be of assistance to makers of sensitive papers.

Even in papers prepared with the greatest care small spots will inevitably appear. Proof of the cause of these spots is of no practical importance, as long as they are inconspicuous or occur so seldom that the faulty sheets can be discarded.

Occasionally, however, spots occur in such numbers that they are prejudicial to the use of the paper, and in such cases proof of their cause, which in the majority of cases is a common one, becomes important.

Many of the spots which frequently occur are well known to the paper-maker, so that he can remove them without further help. The causes and possibilities of the formation of spots are so numerous, and the appearance of the spots is frequently so similar, that

it is not possible, without chemical or microscopical tests, to determine their origin. If the constituents of the spots are identified, a conclusion as to the cause of the formation of the spots may be drawn. In many cases, however, accurate knowledge of their structural behavior and method of formation is necessary, in order to be able to determine at which stage of the work or in which raw material the source of the trouble is to be sought.

Although attention has been directed now and again in the technical press to the appearance of certain spots, the data are so scattered through various journals that it is difficult for the papermaker to find them.

As far as possible, spots which have been previously described in the press or communicated by members, and have been met with in my own practice, are now dealt with.

The spots which most frequently occur may be divided into the following three groups:—

A.—Spots which by reflected light appear darker, but by transmitted light appear lighter, than the surrounding paper.

B.—Spots which, both by reflected and transmitted light, appear darker than, or of a different color from, the surrounding paper.

C.—Spots which are not visible in the raw paper, or at least are not strikingly so, but which appear in the further treatment, such as calendering, painting, parchmentizing, or preparing for iron and silver photographic printing.

To Group A belong resinous, greasy, scum, or sand spots, knots or little balls of conglomerated and strongly compressed fibres and fibrous particles, badly selected paper shavings, etc., masses of silicious or calcareous cells, starch paste.

To Group B belong iron, bronze, lead, carbon, color, sealing wax, and rubber spots, colored fibres, splinters of wood fibre, wood or straw, refuse of hemp and flax, husks of cotton seeds, fungoid growths.

Finally, to Group C belong fibrous knots, chloride of lime residues, sulphite of lime, starch, iron, resin, grease, sand, lumps of facing, and soft wood spots.

### *Resin Spots.*

GROUP A.—The spots caused by resin can be recognized, as they disappear, or at any rate lose their transparency, by treatment with ether. Frequently, by touching them with a hot needle, one can detect the characteristic smell of heated resin.

After treatment with ether, the spot either completely disappears or there remains behind a depression, a dark place by transmitted and reflected light, or, finally, a white kernel. The dark place contains usually iron, as well as some substances of undertermined constitution, which are soluble in caustic lye with a brown color. The white kernel consists of balled fibers, which, when treated with the soda lye, swell up, so that they can be separated and examined microscopically, or of gypsum, kaolin, or calcium monosulphite.

The resin spots arise either from the resin of the wood-cell stuff, or of the gelatine. The resin spots arising from the wood-cells are frequently larger and more irregularly formed, and soluble with greater difficulty in alcohol and ether than those caused by the gelatine; but exceptions occur, and it is, therefore, seldom possible to differentiate, if no special observations have been made as to whether they arise from the gelatine or cell stuff. Only if the calcium sulphite and gypsum can be proved in the spots, ought one to assume that the spots are caused by the resin of the wood-cells.

*Grease Spots.*

The spots arising from grease are very similar to the resin spots, but are generally more sharply defined, and cannot be removed with cold alcohol. If the spot is treated with ether or benzol the grease will dissolve and the spot lose its transparency, but as a rule there remains an opaque spot containing iron or copper. The origin of these spots is, as a rule, to be sought in the bearings and screws of the cylinders. In some cases it has also been observed that they are due to oil slung off the shafts near the paper machine. In the *Wochenblatt fur Papier-fabrikation* 1894, p. 1106, a case is mentioned in which, in order to avoid frothing, bearing grease was placed on the cylinders, and this caused green spots.

Froth or scum spots are mostly small depressions in the paper, sometimes surrounded by a raised ring, which with faced papers is often somewhat more transparent than the middle of the spot, and in a few cases shows another color than that of the paper. As these spots are a result of frothing, and the latter is caused by the gelatine, the ring, which is formed by the breaking of the bubble of froth, contains some resin. Among scum spots, moreover, a whole series of spots of totally different appearance exist, which also show no special characteristics. Whether the scum was actually the cause in all the observed cases can be seldom definitely determined. But the cause of the froth and the means to avoid it are so well described in the technical press that it is not necessary to enter into further details here.

*Sand Spots.*

Sand spots are those spots in which grains of sand or micaceous particles or similar substances are present, as well as those which are really due to sand which has fallen on the paper during its manufacture or has settled down on the drying cylinders or pressing and calendering rollers. In the latter case the spots formed recur at definite distances in the run of the paper. The spots in which sand is actually found are scarcely noticeable in reflected light, or, when the sand is white or colorless, even by transmitted light. The holes formed by the substances which have fallen out of the same are, on the other hand, distinctly visible, both by reflected and transmitted light. The holes are almost always sharp cornered, and often go right through the paper, as will be see against the light, just as though a needle had been passed through. For this reason also they are called "pinholes."

The sand which causes these spots comes either from the water, the wood pulp, the stones which grind the latter, or from the facing material. If it is possible to isolate some grains—which can best be done by drawing the paper over a sharp edge—the cause may frequently be determined by the aid of the microscope or chemical reagents. Felspar and mica are, as a rule, from the facing material, quartz from the water or the grinding stone. Absolute certainty can only be secured when one has an opportunity to test the facing material, etc., used. The pinholes are usually formed in the facing of the paper. The grains of sand then, in consequence of the pressure and bending over the rollers, are loosened and fall out of the paper.

Sand spots of a special kind are those appearing in pairs. A contributor to one of the paper journals gives a very satisfactory explanation of the formation of these frequently-occurring spots. If in the paper roll of the calendar grains of sand or other similar hard substances are imbedded, if the paper kept its

dimensions during the calendering, these substances would be impressed twice in the same place in the course of the paper, once in passing the upper, and once in passing the lower steel roller. If, however, the paper expands when passing over the roller, which always is the case, the two imprints will not coincide, but will be shifted a small distance. As the paper alters not only in the direction of its length but also in its breadth, only those imprints which lie in the middle are behind one another; the others show also a sideways shift, which is greater the further they lie from the middle of the direction of the paper.

### *Knots and Balls.*

Knots and balls are formed from conglomerated fibers or pieces of badly separated paper wastes. In the unglazed papers they form fine, almost unnoticeable lumps, which only become transparent and noticeable after strong pressure. They are very similar to resinous and grease spots, but differ from these by remaining unaltered when treated with ether, as well as by swelling up in water or lye. If the composition of the stuff of the knots varies from that of the paper it is often possible to draw conclusions as to their origin. Frequently it is essential to differentiate whether the fault is due to a mistake in the paper factory or whether the raw material is to bear the blame. In deciding between the two, the results of microscopical examination are of great value. If it is determined, for instance, that in a paper prepared from wood pulp, wood fiber, and waste paper, the knots contain, for instance, wood fiber, it is natural to assume that the wood fiber is the culprit; in this special case the badly selected waste paper would be the cause.

The places of origin of the knots may be considered to be the cylinders, the stuff pumps, the knot catcher, and so on.

There is great similarity between the spots caused by knots and those caused by the siliceous cells of straw. In water they swell only slightly; in lye, on the other hand, considerably. They can be easily recognized under the microscope.

### *Starch Spots.*

Starch spots are only found isolated, and then only in papers which make no special pretence to purity. They have mostly an angular, somewhat elongated form, which shows that they are due to dried starch. Many spots are incorrectly called starch spots; they contain, indeed, some starch, and generally give a darker blue coloration with iodine solution than the surrounding paper, but the starch is here only as a constituent of the waste paper, the insufficient sorting of which is the true cause of these spots.

### *Metallic Spots.*

GROUP B. The most important and frequent of the spots of this group are those containing iron. They appear in many shapes and from various causes. A conclusion can often be drawn from their shape and nature as to the place of origin of this fault, and therefore this subject is treated fully here. First of all are those which have a kernel of metallic iron. In the freshly made paper they form small, black, scarcely noticeable points, which are only unpleasantly visible after damping, rolling, and storing the paper. The cause is almost always too sharp raising of the cylinders. They may be differentiated from the other ferruginous spots by the fact that the kernel is magnetic, and that it can be withdrawn from the paper by a magnetic steel needle.

The second kind of iron spots con-

tains hard brittle and non-magnetic pieces, which either wholly or in part consist of iron. In the first case they arise from any rusty pipe service, or a rusty water cistern; if they contain also a considerable amount of chalk, they are probably due to the working water containing iron and lime salts. In some cases it should be assumed that they may also be due to detached boiler fur carried over by the steam.

The third kind of iron spot consists of a spongy, ferruginous mass, which, when touched with a preparation needle, falls to pieces, or can be distributed into a paste. In the latter case they contain resin or oil, and sometimes so much that they become transparent, and can then be considered as belonging to the resin or grease spots of Group A. The iron of the powdery spots is most likely due to the water, the iron of the soft spots, on the other hand, to the screws and bearings.

The iron spots described above lie entirely in the fibrous film, and penetrate it more or less.

A fourth kind form the rust spots on the surface of the paper. They are due to porous places in the pressing rollers and drying cylinders. By shifting the scraper of the pressing rollers rust spots and streaks are easily formed They can be recognized by similar spots, or groups of spots, recurring in the length of the paper at a distance corresponding to the circumference of the cylinder.

Bronze spots, since bronze has been used as the material for the knives of the cylinder and foundations, also belong to the possible faults in the paper. Their appearance when examined microscopically with about a fifty-times magnification, is characteristic: from a dark kernel proceed ramifying rays of a grey-brown color, which are very similar to fungoid growths, and have therefore been considered as such by many observers. It is very difficult to find an explanation of the method of the formation of these. According to the unanimous opinions of many they only appear after calendering. In the kernel of the large spots, which sometimes have a diameter 4 mm. (when their starlike form can be easily recognized with the naked eye), there will always be found particles of bronze, which, by pressing and rubbing with the preparing needle, show a metallic lustre. In papers with many spots there will frequently be found, on careful search, shining bronze splinters without the starlike rays. In most cases they arise from the bronze parts of the cylinders. In some cases they appear, however, on paper in the preparation of which cylinders without any bronze parts are used. As the paper was prepared from sulphite pulp, there is a possibility that the bronze arises from the bronze parts of the boiler attacked by the sulphurous acids.

In wood-pulp, prepared in lead-lined rotary sulphite boilers, small black spots containing lead have been observed in a few cases. Their formation must be ascribed to the unsuitable nature of the lead used.

Coal spots are caused by small splinters of stone or brown coal. They may be recognized by the sharp edges and corners of the splinters, by their inflammability, and by the fact that they are unattacked by acids. Lumps of earthy colors and filling material often cause spots. They can be easily rubbed down to powder with the preparing needle. Those caused by the filling material are noticeable in colored papers.

Organic dyes can give rise to faults, either in consequence of incomplete solution, or that they have specially dyed individual fibers, such as wool, cellulose, etc.

By an oversight in the sorting of the lumps, sealing wax and rubber will

frequently occur in the paper. The spots consisting of red sealing wax are easy to recognize, but those caused by black wax are difficult to determine, on account of their similarity to other spots. The rubber spots are similar to the resin spots, and are also sometimes somewhat brighter by transmitted light than the paper. Sealing-wax as well as rubber spots are most easily recognized by the characteristic smell which they evolve when touched with a red-hot needle.

Splinters of wood and wood-pulp, parts of the bark, husks of hemp and flax, as well as broken pieces of cotton-seeds cause spots which can be easily recognized under the microscope from the structure of the individual cells. The splinters of wood-pulp mostly arise from the wood near the boughs or from the latter themselves; they consist of cells which vary in form and size from those of other wood cells.

The husks are carried by woody parts of the hemp and flax-stalks, and consist of short cells, the appearance of which, apart from their measurements, somewhat recall the cells of branch wood or straw.

### *Fungoid Growths.*

By long storing of pulp in a damp or half-damp condition fungoid growths appear more or less quickly; they are the so-called foxy stains, which prejudice the appearance and firmness of the paper. In working up the paper, however, they are so distributed and decolorized by the bleach that they seldom cause spots. As the fungi, and, as a rule, also their spores are killed in the drying, they cannot give rise to the formation of fungoid growths in the paper. These may be formed from germs contained in the water used for damping, or the air, and encouraged by the conditions under which the paper is kept.

As one may conclude from the different coloration of the foxy spots, many different kinds of fungus may appear. Professor Herzberg has described and figured a black fungus which occurs in sulphite pulp. This description also applies to many other fungoid spots. When testing the composition of these spots it should be noted that frequently fungi are found in paper free from spots, which obviously arise from the foxy spots of the pulp, and therefore the discovery of a fungoid thread in the neighborhood of a spot does not lead to the assumption that one has to deal with a fungoid spot.

GROUP C.—In the manufacture of paper, defects appear in the product which may be dependent on the raw paper. This kind of fault is undoubtedly the most unpleasant, because the paper maker under certain conditions must be responsible, not only for the paper supplied, but also for the work and materials used in making the paper. As, further, it is not always easy to determine whether the fault is to be laid on the raw paper or the method of working and materials of the paper user, such cases frequently give rise to widespread legal actions.

### *Defects in Raw Paper.*

One of the most frequently occurring questions in the working up of the paper is in the preparation of drawing paper. In this, fibrous knots and splinters of wood, which either project from the paper or swell up through the dampness of the painting material, form small holes in the painted-on film, which, after glazing, give dark shining spots. In testing the cause of such spots special care should be directed as to whether the splinters and knots lie in the paper mass or in the paint from which they are loosely pressed into the paper. In the first case the paper

is undoubtedly the culprit; in the latter case the source of the trouble is doubtful. The splinters and knots can be brushed loose from the raw paper, but they can also arise from the painting material being contaminated with dust. Exact microscopical examination of the knots and splinters, as well as of the paper, can sometimes decide which assumption is correct.

Crater-like depressions in the paint are formed by resin and grease in the raw paper, and give, after glazing, a ring-shaped spot.

Iron is usually only first to be seen when the painted paper is mounted on a card and the starch paste dries slowly, so that the water has time to act on the iron. If the starch paste be acid, the action is naturally hastened. Whether the iron which produced the spot was in the paper or the card must be determined by separate tests, *i.e.*, by treatment with acidulated ferricyanide solution.

If the paper is pasted on to tin plate, and if for any reason the drying of the adhesive material is slow, rusty spots will be caused on the paper. In all cases met with up to the present, the iron in the tin plate is the cause. The damp reaches the sheet iron through very fine holes, not visible to the unaided eye, in the tin coating, and causes the formation of rust and diffusion of the iron into the paper. If a piece of paper free from acid is dampened with distilled water and laid on the metal plate, rust spots appear, in about two hours if care is taken to ensure slow drying. That this disadvantage can be avoided if the evaporation of the water in the adhesive material is hastened, or at least not hindered, was proved by pasting the same paper on a number of flat iron boxes. The paper on the sides was free from spots, that on the flat cover, on the other hand, very rusty, because the boxes, after the pasting, were placed one over the other, so that the damp could only escape very slowly.

Sand and similar substances cause holes or small dark spots in the painted paper. Whether in this case the raw material or the paint is at fault is often very difficult or impossible to determine, especially when some of the unpainted paper cannot be obtained.

In parchmentizing, many faults may arise from many causes which can be ascribed to the raw paper. The proof succeeds in this case only if the raw paper can be tested, on account of the strong action of parchmentizing mediums.

Resin and grease prevent the action of the acids, chalk and chloride of lime neutralize the acid and give rise to air bubbles, which prevent the penetration of the acids.

In the preparation of papers for tracing or for photographic processes of all kinds, although the paper may be prepared with every care, failures will show themselves, the causes of which probably lie in the paper. These defects are frequently of such a nature that it is not possible to investigate them with the microscope or the usual reagents. In such cases a trial should at least be made as to whether the paper or the method of treatment gives rise to the faults. As the trouble often appears only with a certain treatment and under certain conditions, such as warm air, damp etc., which are not known or which cannot be maintained exactly, the experimenter is forced to a more or less roundabout method of test.

Tracing paper, which is prepared by saturation with drying oils, etc., acquires, when the raw paper contains iron (sometimes after long storing), brown spots, which do not make the paper useless, but which give it a bad appearance. Similarly: In iron printing papers fibres containing lignine cause defects, because they attract and reduce iron, and especially the cyanogen compounds of iron.

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By R. Fendius, Magdeburg, Germany

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4. By A. Pieperhoff

*Illustrating Sidney Allan's Article*

5. By E. Bieber
6. By R. Dührkoop
7. By B. Gunther
8. By R. Dührkoop

*Illustrating Sidney Allan's Article*

9. By Anon.
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11. By A. Gottheil
12. By R. Dührkoop
13. By W. Zeir
14. By. H. Erfurth

*Illustrating Sidney Allan's Article*

# ON THE USE OF FURNITURE IN PORTRAITURE.

BY SIDNEY ALLAN.

SINCE the introduction of home portraiture by professionals and travelling photographers there has been quite an innovation in the use of furniture. Nearly everything is found available now, in strange contrast to former decades, when curtains, a few chairs, a a papier maché balustrade, an artificial pot of flowers, a column pedestal, and a table were considered sufficient for all purposes.

I believe the old timers acted very wisely in limiting themselves in that way. There is really nothing gained by a profuse application of furniture and the depiction of entire interiors. Every common-sense photographer will agree with me that portraits like Fig. 10 are not desirable. It is pushing the importance of surroundings and background entirely too far. The only trouble with the old-fashioned studio furniture was that it was in most cases so pretentious and at the same time so hopelessly awkward and ugly. There was not the slightest suggestion of beauty and sanity in it. It was artificial to the extreme. And it is entirely due to home portraiture (starting with the amateur and pictorialist) that the professionals have broken away from the old conventions and slowly begin to equip their studios like some tasteful interior or drawing room. The furniture looks more natural and helps to suggest space and atmosphere in the picture.

But unless you make a specialty of home portraiture, I am sure you will find that the excessive use of furniture in the composition of portraits is a hindrance rather than an aid. The less you make use of furniture the better you and your pictures will fare.

Of course, any amount of good portraits have been made in which pieces of furniture play a conspicuous part. Look, for instance, at Figs. 1 and 2. Fig. 1 in particular is excellent. It is lighted in a way that the upper part of the figure furnishes the principal attraction. Everything else is subordinated to it. There is nothing obtrusive about the numerous vertical and horizontal lines of the picture frames and writing table; a clever management of dark planes brings everything into harmony. The only improvement I could suggest would be to modify the white spot under the chair and the shimmer of light on the lady's dress under the table. Fig. 2 suggests a large spacious room, but that is about all that has been gained by taking the interior. A plain background would have served the purpose just as well. The light on the lady's dress is so very strong that it seems forced, and there is no home atmosphere about the picture.

Quite an elaborate attempt is shown in Fig. 6. It does not look quite as natural and homelike as Fig. 1, but the arm chairs, table, oil painting, and fireplace have been used to good advantage. The figures and objects are well spaced. Notice in particular what an important part the triangular plays in the composition.

Home portraiture like Fig. 8 is always pleasing. Children look most natural in their home surroundings, and should only be taken when they are at perfect ease. Miss Mathilde Weil, of Philadelphia, has done some remarkable work on that line, and shown us what can be done artistically with a nursery or parlor floor. Also Fig. 5 is a good composition, although it might have been improved by bringing the child,

curtain, and flowers a trifle closer together and making a narrower panel out of it. A window sill furnishes an excellent accessory to the posing of figures. It is full of contrast, generally simple in line, and offers excellent opportunities for strong as well as subdued lighting.

A half-open door with the glimpse of an interior (Fig. 11) also affords excellent opportunities for pictorial treatment. It depends all on the character of the figure and how it is posed.

An easel with a painting, or similar objects at which persons look, as in Fig. 7, is less favorable. The portrait changes into a story-telling picture, and, strange to say, the more artistic the treatment is the less of a portrait it will be.

Of the larger pieces of furniture, few are so often introduced as the piano. It is a rather cumbersome affair. It is too unwieldy in form, unless you indulge in clever space composition. In ordinary portraits it should be rather suggested than seen. It is too obtrusive in Fig. 4. Fig. 3 (a portrait of the Swedish composer Edward Grieg), where it is merely indicated in the background, is much better. This rule applies nearly to all furniture. Even a chair, the one piece of furniture absolutely necessary to portraiture, is rarely so beautiful in form that it improves the picture if entirely shown.

The chairs in Figs. 2 and 4 are rather handsome specimens, and yet it were better if they were not so plainly seen. The lines should have been broken somehow by drapery or cut into by the edge of the picture, as in Figs. 1 and 8. This is also well carried out in Fig. 13. A sofa should only be shown in perspective or in part, for the shape of all this kind of furniture is too symmetrical to look well in ordinary portraits.

It would take exceedingly clever composition and treatment to render the full view of a settee, sofa, or lounge attractive. Somehow the pose of the figure had to subdue the severity of lines and masses.

Fig. 10 is an imitation of Whistler's "Mother," and in my opinion a very bad one. The photographer has followed the painter closely in every particular, and yet accomplished nothing resembling the spirit of the original. Whistler's painting, besides being a tone arrangement in black and grays, is largely dependent on line and space composition. The lines in the background, in the curtain and pictures, and the differentiation of values in the wall paper were specially invented for the figure. They had to correspond with the lines of the silhouette. It cannot be repeated with another figure. Another figure needs another arrangement. This is a young woman in an empire gown; the other was an old woman in severe black garb. Both need their own treatment, and it depends entirely on feeling, on an inborn good taste that cannot be explained. The borrowed paraphernalia does not help the young lady in Fig. 9 a bit. Without the curtain and swan picture, cut so that it would make an upright instead of an oblong, it would be a much better picture.

In photography the representation of one picture in another should be scrupulously avoided. It easily becomes too conspicuous in all its various details, and looks absurd as in Fig. 12. Fig. 9 is bad enough in that respect. It should be merely a blurred effect, as in Fig. 1.

A profusion of bric à brac, as depicted in Fig. 12, is also not to be recommended. The photographer probably wished to show that his sitter was an art patron. The little statuette alone which the sitter holds in his hand would have indicated that in a far more impressive way than all the other stuff littered across the table. For a still-life repre-

sentation it is not clear enough, and for the intended purpose it is unnecessary.

And to avoid the unnecessary should be a maxim of all photographers. What is the use of bothering with all sorts of cumbersome objects that do not enhance the picture? Do you not think that the lady in Fig. 14 could look just as well without the chair, or the child (Fig. 13) could have been taken just as interestingly without the sofa? And the same question could be asked about nearly all the pictures except Figs. 1, 6, 8, and 11. Of course, it lends variety to your pictures. I perfectly agree with you there. But there is no use in making special efforts to obtain indifferent results. Only use furniture when it is really necessary for your portrait, or when you have thought out some scheme of composition in which it will produce a startling result.

## THE WET COLLODION PROCESS.

MANY at the present time who are only familiar with the glass positives taken by the itinerant photographers of the sea-beach and holiday resorts, writes Wm. Foxlee in the *British Journal*, have but little conception of the beauty and delicacy of a really good collodion positive. The productions just alluded to are little short of libels on the process. Moreover, a collodion positive, if varnished, is one of the most, if not the most, permanent of all silver pictures. For some few years—1851 to 1855—the practice of the collodion process was practically confined to the production of positive pictures, inasmuch as the making of negatives, or, rather, the printing from them, was claimed by Fox-Talbot as being an infringement of his calotype patent. Hence the advancement of photography, so far as the production of collodion negatives was concerned, was retarded for about four years; or until the famous suit of "Talbot v. Laroche" was tried at the end of 1854, when it was decided that this claim could not be sustained. Up to that period only glass positives, to any extent were made commercially, and they — when made by first-class photographers—competed very keenly with Daguerreotypes in quality, while, of course, they could be produced at a much cheaper rate. For delicacy and fineness of detail they were but little inferior to Daguerreotypes, and some of them closely resembled them in appearance, while they possessed the advantage that they could be viewed in any light.

### *Collodion Positives.*

It may be as well here to say a few words on the difference between a collodion positive and a collodion negative, for they are both, to an extent, the same. For example, if a collodion negative is looked down upon with something dark beneath, it shows as a positive, though not as a good one, and if a positive is looked through it shows as a negative, though an exceedingly thin one. In a word, a glass positive may well be described as an under-exposed and under-developed negative, so closely are the two allied. The difference between glass positives and ferrotypes is simply that the former are taken on glass plates and afterwards backed with a dark material, and the latter are taken direct on an opaque material—the now well-known ferrotype plates. The manipulations with the two are precisely the same whichever is used, and they do not differ materially from those in

the production of negatives, but the conditions to be observed differ. In making a negative the object is to get density in the image as well as detail. In a positive it is to obtain detail with great thinness. Also as the blacks are formed by the backing material, whatever that may be, it is imperative that the deepest shadows of the picture must be free from any trace of veiling, or the picture will be lacking in brilliancy.

### *Manipulation in Making Positives.*

The practical working of the process will now be described. The plates, whether glass or ferrotype, should be cleaned in the same way as for negatives, and the same scrupulous cleanliness must be observed throughout all the manipulations. The collodion for positives may be a little thinner than is desirable for negaitives—say a drachm of a mixture of equal parts of ether and alcohol added to each ounce of it. The novice will probably get on best by purchasing a collodion specially made for positives. The collodion is best used two or three months after iodizing, so that it is highly colored. If it has to be used soon after iodizing a little solution of iodine in alcohol should be added to give it almost the color of port wine. The silver bath, too, should not be quite so strong as for negatives, and it may be made a little more acid. A good formula for a positive bath is:

| | |
|---|---|
| Nitrate of silver . . . . . | 2 ounces. |
| Distilled water . . . . . | 30 ounces. |
| Nitric acid (pure) . . . . | 4 minims. |

The bath must be saturated with iodide of silver in the way described for negatives (see previous articles) and filtered. It is then tested with a trial plate in like manner, and, if found defective, corrected in the same way as then directed.

### *A Developer for Positives.*

For the developer for negatives the common sulphate of iron (copperas) was recommended, as that conduced to density in the image. But density is to be avoided in the present instance, so the pure proto-sulphate of iron should be employed, according to a formula such as:

| | |
|---|---|
| Proto-sulphate of iron . . . | ½ ounce. |
| Glacial acetic acid . . . . | 1 ounce. |
| Nitric acid . . . . . | 10 minims. |
| Water . . . . . | 20 ounces. |
| Alcohol . . . . . | q.s. |

The larger the proportion of nitric acid the more metallic-looking will be the image. If the acetic acid be omitted entirely and its place taken by a larger proportion of nitric acid, the picture will partake somewhat of the character of a Daguerreotype, but there may be a lack of half-tone if too much is employed.

Another formula for a developer that yields very white and clear images, even better than the one just given, is as follows, but it is a little more trouble to prepare:

| | |
|---|---|
| Proto-sulphate of iron . . | 1½ ounces. |
| Nitrate of baryta . . . . | 1 ounce. |
| Nitric acid . . . . . | 2 drachms. |
| Water . . . . . | 20 ounces. |
| Alcohol . . . . . | q.s. |

The iron should be dissolved in half the water and the baryta in the other half and the two mixed together. Then the precipitated sulphate of baryta is filtered out and the nitric acid and alcohol added.

### *Some Minor Precautions.*

The exposure required for positives is not more than half that necessary for negatives, therefore it is really a more rapid process. The developer is applied in the same way as for negatives, but it may be used a little more lavishly, as it

is not desirable to have too much silver solution on the plate, since a dense deposit has to be avoided. The development must be carefully watched—looking down on the plate and not through it; and as soon as detail appears in the deepest shadows, indeed, almost before that, the plate is quickly washed under the tap. It is then fixed with a solution of cyanide of potassium—about ten grains to the ounce of water. This may be used by flowing it over the plate or in a bath. Hypo is not good for fixing positives, as it does not leave such a white and brilliant image as does the cyanide. The washing after development should be very complete, or blue stains may result from the formation of Prussian blue in the film when the cyanide is applied. After fixing the picture is well washed and dried. The drying may be hastened by heat, if desired, without fear of its being injured. The plate is then varnished with a colorless varnish to prevent the atmosphere from tarnishing the silver.

The most suitable varnish for collodion positives is dammar, made as follows:

| | |
|---|---|
| Batavian dammar . . . . | 2 ounces. |
| Benzole (pure) . . . . . | 1 pint. |

Dissolve, allow to settle, and then decant the clear portion, or the varnish may be filtered through paper or cotton-wool as soon as the resin is all dissolved. This is applied to the picture, cold, in the same way as the collodion, and it dries in a few minutes. It goes without saying that the film must be thoroughly dry before the varnish is applied, otherwise it will not dry bright or transparent. If our picture has been taken on a ferrotype plate it is finished and ready for framing. But if it is on glass it will require backing with black varnish or with a piece of black velvet. If the black varnish, such as Bates' black, be used it may be applied with a brush, and a thin coating, which dries quicker than a thick one, will suffice.

Our picture is now reversed as regards right and left, as all ferrotypes must be; but when taken on glass that need not be so. All that has to be done, after it is varnished with the dammar varnish, is to turn it over and put black velvet on the film side; we then have the picture the right way about. Instead of using the dammar varnish, when a non-reversed picture is desired, the black varnish may be applied direct on the film. In this case the picture is seen through the glass, but the image then is not so white when seen from the under side of the film as it is when viewed from the upper side, and, moreover, the black varnish has a tendency, when applied direct on the film, to degrade the whites. When a non-reversed picture is desired it is best to varnish it with the dammar varnish first and then place it in the frame, or case, with a piece of black or purple velvet underneath. In this way the whites are kept purer and whiter than if black varnish were applied on the film. Collodion pictures can be, and sometimes are, whitened with a saturated solution of bichloride of mercury. They were then called "alabastine" pictures and were well suited for coloring, which used to be done with powder-colors in the same way that Daguerreotypes were colored.

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*Tantalum Tubes for Radiography.* Tantalum is likely to supersede platinum for the preparation of the anti-cathodal part of $x$-ray tubes, and a new tube is shortly to be introduced which will take such a heavy discharge that instantaneous radiographs will become easily possible to those who possess a coil giving the necessary discharge. A great advantage in the tantalum tube is that it maintains a constant vacuum for a considerable time, and a "harsh" condition is thus less likely to take place in it.

## SUMMER DEVELOPER.

WITH the spring and summer months approaching, it should be remembered that the solutions used in photography will act differently than during the colder months.

Developer especially will have a different action. If a small amount of developer is allowed to remain in a tray in a warm room it will soon take on the temperature of the room.

Developer should be kept at a temperature of between 65° and 75° F., as the chemical action is best at that temperature.

Developer used at a higher temperature will work rapidly, and prints normally exposed will appear to be overexposed.

This leads to underexposure and overdevelopment, with the consequent loss of quality in prints.

Keep your developer as near normal temperature as possible for best results. If this cannot be done, use more bromide in the developer to restrain its action, or dilute the developer somewhat with water to slow its action.

This will allow correct development of a normally exposed print which would otherwise develop very rapidly.

In warm weather the remedy for too rapid development lies in correcting the action of the developer and not in giving the print less exposure.

Correct temperature for the developer is of course the most desirable way to work, but the use of extra bromide or more water is preferable to underexposing the prints.

Make a mental note of these facts, and you will be able to handle your summer developer intelligently.

## SUMMER NEGATIVES.

The foregoing article in regard to the temperature of developer applies to plates in a general way.

We will not attempt to give you instructions in regard to your plate developer, but can safely say that in summer it will work more rapidly and consequently will produce coarse-grained, harsh, or contrasty plates.

One way to avoid this trouble is to dilute the developer with water to slow its action. We do not recommend the use of a bromide restrainer in plate developer, as it may change the quality of the negative.

The manufacturer of the plates you are using can give you accurate advice in regard to making negatives during hot weather, and how to modify the developer to preserve all the delicate gradations so necessary to high-grade work.

A general rule that can be applied is to use a developer that works fairly slow, as this will give you a fine grain silver deposit in your negatives. After negatives are fixed and washed *dry them quickly.*

An alcohol bath after washing, then drying quickly with circulating air, is one way to avoid the dense blocked negatives caused by slow drying during hot weather.

We are interested in good negatives, and offer these few suggestions to help produce negatives of good printing quality.

If the negative is good the print will be good, and that's what we want you to have—good prints.—*Artura Bulletin.*

## TONING DEVELOPED PRINTS.

THE desire to obtain colors other than those given by developing *per se* has led the manufacturers and users of bromide and so-called gaslight papers to resort to different methods. Of the many methods used, the one that has found the greatest application is the so-called sulphide method, of which the Velox re-developer may be taken as a good example. Sulphide tones properly made are permanent. Sufficient time has elapsed since their introduction to thoroughly prove this. Facility of production is also in their favor. The tones are, however, not very varied, nearly always being some shade of sepia. Experiments to obtain some other permanent sulphide tone were made by the writer with what appeared to him to be a fair degree of success. It was found when finished prints made on Velox and Nepera bromide paper (I mention these papers because mv experiments were confined to them) were immersed in a solution of ammonium sulphocyanide and sodium sulphide, a good purplish tone, very often equal to a gold tone on printing out paper, was obtained.

The following formula has proved the most satisfactory of any tried:

| | | |
|---|---|---|
| A. | Ammonium sulphocyanide | 8 ounces. |
| | Water to make . . . | 16 fluidounces. |
| B. | Sodium sulphide (crystals) | ½ ounce. |
| | Water . . . . . | 3 onnces. |

Following are condensed instructions for its use:

BATH NO 1.

| | |
|---|---|
| Solution A . . . . . | 1 ounce. |
| Water . . . . . | 3 ounces. |
| Solution B . . . . . | 1 drachm. |

Mix just before toning.

Immerse the fixed and washed (and perfectly dried) print. The toning action begins almost immediately, ranging through the purple tones first and then into the sepias.

Allow the print to remain in the toner until the desired color is reached, then wash fifteen minutes in running water and dry as usual. With the bath at 70° to 80° F., prints will tone in from fifteen to forty minutes; at 90° to 100° F., five to fifteen minutes will suffice; but it is not advisable to use the bath at a higher temperature than 100° F., owing to its softening action on the film. Prints developed with Velox N. A. developer tone quicker than prints developed with ordinary developer.

The rapidity of the toning may also be increased by adding more of solution B, but not more than 1 drachm should be added to the original solution at one time as this would render the bath too alkaline and soften the film. It works best when freshly mixed and after forty minutes or so more B solution may be added. The old bath may be kept for future toning, but before use it should be filtered or decanted to remove the white precipitate formed, and fresh B solution added, but it should be discarded when it becomes so alkaline as to affect the film.

It will be found that the toning is influenced somewhat by the character of the negative used, different degrees of density in the negative affecting the silver deposit on the print and the subsequent action of the toning solution. It will also appear that matt papers tone more readily than the glossy, and that purple tones are easiest secured on glossy papers. It must be confessed that the laws governing the action of this bath are not as thoroughly known as could be desired. Sometimes it will work quite rapidly, and again, under apparently the same conditions, it works much slower.

*An Alternative Formula.*

Further experiments have shown that its certainty of action could be greatly improved by mixing with it hypo alum toning solution, made according to the following formula:

| | |
|---|---|
| C. Hypo | 10 ounces. |
| Water | 50 ounces. |

Heat to boiling and add

| | |
|---|---|
| Powdered common alum | 2 ounces. |

Allow to stand until cold. It improves by standing.

BATH No 2.

| | |
|---|---|
| A | ½ ounce. |
| C | ½ ounce. |
| Water | 3 ounces. |
| B | 1 drachm. |

When B is added the solution is clouded by the precipitate aluminium hydroxide. This precipitate does not interfere with the toning action.

This latter bath (No. 2) yields tones equal to and quite often superior to the former bath (No. 1).

It also smells more strongly of hydrogen sulphide, and it is not advisable to use it where the ventilation is poor. As its action ceases more of B can be added. The latter bath has also better lasting qualities. I have known it to tone without adding an additional quantity of B after it has stood over-night.

*An Improvement to Sulphide Tones.*

Prints from some negatives when bleached and redeveloped with sulphide solution sometimes incline more to the yellow than is desirable. Having ascertained this fact, colder tones can be obtained on subsequent prints to be toned by using bath No. 1 as a preliminary bath. How long the print should remain in bath No. 1 cannot be stated with exactness, as there are several factors to be taken into consideration; chief among these are (1) how much the color given by the bleach and redeveloping method differs from the desired color; (2) how fresh bath No. 1 is. The fresher the bath the quicker it works. Other things being equal, the longer the print remains in bath No. 1 the colder the tone. In a freshly-prepared bath at the ordinary temperature even fifteen seconds is enough to effect a change in color in the finished print.

As a general thing, any immersion—even one falling far short of the time necessary to produce a visible effect— is quickly made apparent by the print refusing to bleach as much as it would have done were it untreated when placed in the bleaching solution. Prints should be well washed before placing in bleaching solution, and should remain in it from five to ten minutes, or until it is certain that the bleaching is completed. After bleaching, prints should be rinsed free from bleaching solution and redeveloped as recommended in the Velox developer instructions.

What chemical reactions take place in what I would call the sulphide sulphocyanide method of toning I have not investigated far enough to state.

However, hydrogen sulphide is released, and this in its nascent condition no doubt has power enough to attack the silver of the image. It is also certain that other reactions have an effect, for if the ammonium sulphocyanide is replaced by an equal weight of the potassium salt the toning action is very much slower.

To the question, Why does this method give a different color from that obtained by simple bleaching and redeveloping with sulphide solution? it might be answered: Because the conversion of the silver is not so complete as in the latter process. In reply I would say that it would be hard to imagine the colors obtained on some prints as resulting from a combination of sepia and black.

As they are, the processes described are practical, but there is room for improvement.

## WHAT THE EDITORS ARE SAYING OF "COMPOSITION IN PORTRAITURE."

THE following reviews of Sidney Allan's book are interesting as showing what the different editors of the photographic magazines think of the attempt made by Sidney Allan to help the photographer toward better composition in his portraiture. It is admittedly a difficult subject to teach. The success Mr. Allan has achieved in this direction is indicated in the extracts given below.

The editor of *The British Journal of Photography* writes:

"Of the making of books there is no end." So said somebody once, but who, and when, we do not know. With regard to books upon art principles applied to photography it is painfully true. The astonishing thing is that poor affairs in the way of photography continue to be produced, in spite of all the literature showing a thousand and one golden rules and royal roads and short cuts. And another surprising thought is that anything of any artistic value at all was ever produced in earlier days before this mass of oracular enlightenment was offered to a favored public. It must not be denied that books, lectures, and so forth do here and there brighten a dullard and enlarge the mind of a narrow-viewed aspirant, but for our own part, we believe that their chief use lies in the accretion of cash or kudos to their promoters. The latest comes from America, and is written by "Sidney Allan," better known in photographic circles as Sadakichi Hartmann. It is no less useful than its forerunners, and, like them all, raises hopes of exposition in the matter of art. We believe that these books are largely purchased by a public who feel that art is a mystery to which they have not the key, but that in the magic pages they will find it; that they have only to read in order to be master of those esoteric mysteries which differentiate a mere man from an artist. We are not sure that the authors themselves are not also honestly under this impression, since they so often start off with promises to put the matter in a nutshell—a thing which they infer nobody before has succeeded in doing. Mr. Allan, for example, says, in his introduction: "I am of opinion that most books on this subject, excellent as they may be, have treated it in too pedantic and pedagogical a manner. The theories of these writers are too elaborate, involved, clogged up, as it were, to be of practical use. No man can remember all they say about obliterated verticals and circular attraction, etc., particularly a photographer, who cannot gradually construct and improve a composition. Why not talk in plain English?" All this may be true, but it smacks of the cheap jack. And the aspersions upon technical language are ill bestowed, for these matters cannot be written of at all without theorizing, and theories are useless unless expressed with care and exactitude. After all, if we must have books on art, they would better be the treatises of Da Vinci, Reynolds, Goethe, and Ruskin, than the colloquial prattle books that can be read in half a day and forgotten in half an hour. Mr. Sidney Allan says many true and good things; but his "plain English," such as it is, doesn't cut at the core of the matter any swifter than the language of the literary and artistic giants we have named. The fact is, that whilst many have written *about art*, nobody has actually written *art itself*. It is an incommunicable thing. A man

has it or hasn't it, and there's an end of the matter. Mr. Allan knows this well enough, for he says: "No painter really argues out these things while he paints. He feels them intuitively. As a painter said to me one day, 'We do things, and then you critics come down and talk about how we have done it, when we hardly know it ourselves.' "

"His art knowledge must be second nature with him, or it is of no use at all."

"The good taste of the photographer must decide these questions, a certain subtle instinct for what is right or wrong. Nobody else can do it for him."

"The best way to learn is to try and assume attitudes and poses with your own body and face before a mirror. I am convinced you will learn more in half an hour than by the study of a dozen books on composition."

"The remainder" (all in addition to mere principles) "necessarily must be left to years of experience and experiment. Only in that fashion will my readers arrive at the mastery of composition, not merely of its fundamental principles, but all its intricate subtleties and marvellous possibilities."

The moral of this is that the rare part cannot be acquired. Principles are dry bones. The breath that can make them live is born with the artist. But the man who has this breath can flout and subvert the principles and charm us still. Many photographers have done so. As the author himself admits, we are leaving old methods and old points of view (beg pardon, "view-points"). To revert to them is, therefore, no more fruitful of success than to invent new ones. Photography has opened such a number of new doors to artistic effect that it has made its own new principles. This little book cannot tell any one how and when to employ these principles—new or old; that is the intuitive part necessary to the photographer.

What the book does do is to get together reproductions of portraits, both paintings and "photos," to use the author's own term. These range from Botticelli to Dührkoop, and in themselves are highly interesting. It then classifies and describes the examples, praising here and condemning there. If a reader should be anxious to learn which of this endless variety of pose and arrangement is intrinsically bad or good, he is driven up against the author's own preference as a final criterion. It could never be otherwise. He will find every pose he has ever thought of, every scheme of lighting he has ever seen, represented and receiving some sort of honorable recognition. Where, then, does he stand? He looks in vain for the royal road, the golden rule. He must not blame the author, but himself, for this, inasmuch as what he wishes to learn cannot be written.

We have said that the book contains many good and true things. A few of these are aphorisms worthy to be written in characters of gold and displayed in every studio:

"A good print proves to be the result of what has happened in the studio previous to pressing the bulb."

"The hands in the large majority of portraits look like those of negroes."

"The hand without the wrist is not beautiful. It is rather clumsy-looking."

"Holding a fan, a flower, a book, etc., is always effective, but I draw my line at statuettes and crystal balls."

"In some of our advanced professionals, when they try to do the 'artistic trick,' you will find two or three flat tints in the face against an opaque background. They have fallen into the common error of mistaking darkness and monotone effects for tonality."

"It is my contention that the most natural light effect would be also the most effective one for portraiture."

"The majority of portraits today look as if the people depicted were mulattoes.

or quadroons, which is not particularly flattering to the sitters."

It is such observations as these that the real educative value of the book lies. They sound a sane note. Mr. Allan has our indorsement of his views when he deprecates the modern custom of placing a head, or a part of a head, not where tradition points as its proper place in the field, but encroaching from the side or top in the manner suggested by the unsymmetrical characteristics of Japanese art. This is one of those developments that have been forced not so much by artistic as by advertising motives, and we shall be glad to see it pass away for the childish practice it is. The Japanese are not portrait painters, and a portrait is all the worst for resembling a Kakemono.

In most matters the author displays a welcome common-sense and an independence of opinion. Only in two instances do we venture to disagree with him. One is in his extravagant praise of Whistler's portrait of Carlyle, which forms a frontispiece. Mr Allan asks us to notice how all the details of dress have been eliminated; how the outline has been accentuated against the background; how naturally the figure is seated, and how well it has been placed in space. There is an atmosphere around the figure. One feels that this person is seated in a room, and so on. There is too much hero worship about this. As a matter of fact, the points indicated can easily be shown to be downright faults. The figure is as flat as paper, which it resembles, as though cut out and pasted against the wall. As to being naturally seated, surely nobody but a lunatic would naturally seat himself close to a wall in this manner. There is less feeling of air and space than in most painted portraits. Whistler made the unfortunate mistake of trying to repeat a former success. His "Mother," which is a fine and subtle work, was bought by the French nation, and Whistler wanted to "do it again." But his Carlyle is not a repetition of the qualities of the "Mother." Nor is it a dignified and manly likeness of the Chelsea sage. The work has a spurious reputation induced by the widespread reproductions that sell cheek by jowl with other specious works, and the magic name of Whistler alone brings it upon many a wall. We consider it anything but a good example to set before photographers, who, in fact, are admonished in this very book against several of its characteristics. Mr. Allan also much admires Boldini's portrait of Whistler, in which we find it difficult to see more than a clever and superficial virtuosity joined to a particularly unhappy composition.

The other point whereupon we differ is that portraits by certain old masters named were probably less good as likenesses than photographs are today. It is because the photograph is characteristic of a moment only, and all the accidentals which that moment bursts upon the sitter, that likenesses are often unconvincing in camera work. The general and typical truth of the painted portrait allows a truer rendering of the sitter's personality and character. In such a case as that of Velasquez the truth of his likeness is proved by the many portraits of Philip IV, which are far more like each other than as many photographs would have been.

Besides the numerous half-tone blocks, the book is illustrated with many diagrams, a few of which we seem to have seen before in an article by Mr. Sutcliffe, of Whitby. Their source is not acknowledged, however, although mention is once made to an English photographer whose name is forgotten as the originator of two plans of a studio showing lighting arrangements.

The chief utility of a book of this sort is its reiteration of the well-established

modes that painters in past times have proved to be the best. With these modes it is a case of a survival of the fittest and of the safest, for those who have not the artistic equipment necessary for pioneer work. We recommend the little volume on account of the author's sound observations and reflections, and of his thorough appreciation of the principles practised by the old masters, of whom he gives copious illustration.

His warnings and frank criticism of many fads of modern photographic work are refreshing and salutary.

The editor of *The Photo-Miniature* writes: I consider Sidney Allan's "Composition in Portraiture" the clearest and most helpful work on this subject yet offered to photographers. Every page has its lesson and the illustrations make the lessons plain and practical.

The editor of *Abel's Photographic Magazine* says: I commend WILSON'S MAGAZINE for its interest in the profession shown by its publication in book form of the series of articles on "Composition in Portraiture" which have appeared in that journal during the past year. The subject is one of which photographers can never know too much, and while Professor Beck and Mr. Poore, the artist, have both written books on the same subject for the same class of people, this new work on composition has the distinct advantage of having been written by one who is not only well versed in his subject, but is well known for his skilful criticisms, and has, besides, a unique acquaintance with professional men and their real needs along the lines of portrait composition. In "Composition in Portraiture," Sidney Allan has left generalizations alone, and, dividing his subject into heads, has shown, by example and picture, what is good and what is faulty. . . . It is simply written, without art technicalities or long ramblings on the lessons to be taught by the old masters, though they, of course, have their due place in the various examples shown. It is a book worth studying, and the most worthy thing that Sidney Allan has yet done for photographers.

The editor of *The Camera* writes: It is with pleasure that we find someone has undertaken to show how taste and feeling for the beautiful may be brought into action in the daily practice of portraiture. Mr. Sidney Allan has certainly given the professional, as well as the amateur, a book which is written with enthusiasm for the art, but at the same time with sane judgment and considerations of the factors confronting the operator. . . . The book is practical in every feature and at the same time suggestive. We heartily recommend this most excellent work, which should be in the possession of everyone who desires to advance in the profession.

The editor of *Camera Craft* writes: Sidney Allan (Sadakichi Hartmann) has given us, in a book with the above title, a work that has long been needed and one for which he should have our best thanks. That he is well qualified to supply the want in this direction will be conceded by the host of photographers who have read and profited by his valuable contributions to the literature of artistic photography in the pages of WILSON'S PHOTOGRAPHIC MAGAZINE and other like publications. While the title does not so state, the work is particularly intended for photographers, many of the illustrations, of which there are one hundred and thirty-six, being reproductions of photographic portraits. Special attention is given to posing and lighting, and posing and lighting as it is conducive to the attainment of artistic effects consistent with both good photography and pleasing results. While the informative quality of the instruction given is of the greatest value as being practically new to a large majority of camera users, there is nothing that is revolutionary or suggestive of untried or immature theorizing.

## ENAMELLING GELATINE AND COLLODION PRINTS.

NOTWITHSTANDING that there has been a steadily increasing taste with the majority of the public for pictures with a matt surface, there is still a demand, among a certain proportion of it, for glazed prints. The fact is evidenced by the number of highly glazed postcards one sees in the shop windows. If further evidence were required, it is supplied by the queries constantly addressed to us as to the method of enamelling photographs with a collodion surface. The following notes may therefore be of service to many more than those who seek assistance.

*Cleaning and Polishing the Glass Plate.*

In the first place some glass plates are required. They should be somewhat larger than the prints to be enamelled, and they must be free from scratches, as any deep ones would show in the finished pictures. The plates must be very thoroughly cleaned; but before that is done the edges should be roughened either by rubbing two together or, preferably, by a ragstone, or a corundum file. It is a good plan also to roughen the edge of the plates the eighth of an inch or so round the margin, as that will give a better hold to the collodion and prevent it springing off as it dries, should it be of a contractile nature. The glass, as just said, must be made thoroughly clean, otherwise the film will be liable to stick permanently. Whiting and water, or, better still, tripoli and wood alcohol are good cleansers, and are both to be applied after the plate has been well washed with soda and water, and rinsed. When the glass has been thoroughly cleaned and polished, it must be prepared so as to prevent the collodion film from permanently adhering. There are two methods of doing this. One is by waxing, and the other by treating it with French chalk.

For waxing, the following solution is made:

| | |
|---|---|
| Pure beeswax (not white wax) . | 50 grains. |
| No. 1 benzole . . . . . | 10 ounces. |

The whole of the wax will not dissolve and make a clear solution, but that is of little moment: the clear portion is decanted for use. A little of this is poured on the plate and well rubbed over with a piece of soft flannel. The surface is then polished with another piece of flannel, so that no streaks or markings can be seen, and the glass looks as if there were nothing upon it. The same pieces of flannel may be used over and over again; indeed, up to a point they improve by use, as they polish better than does the quite new material. Waxing the glass is certainly more trouble than treating it with French chalk, but some prefer it, as they think it yields a brighter surface to the print. If the French chalk be used, it should be dusted over the plate and then rubbed over with a piece of soft rag, with some pressure; the surplus is then dusted off with a broad camel's-hair brush.

*Collodionizing the Plate.*

The plate is now ready for collodionizing. A good enamelling collodion is made as under:

| | |
|---|---|
| Pyroxyline (not powdery) | 100 to 120 grains. |
| Wood alcohol . . . . . | 10 ounces. |
| Ether . . . . . | 10 ounces. |
| Caster oil . . . . . | 4 or 5 drops. |

The pyroxyline should be put into a bottle with the alcohol, and well shaken

before the ether is added: it then dissolves rapidly. When dissolved the castor oil is added. The collodion should be allowed to stand for a day or two for any undissolved particles to subside, when the clear portion can be decanted for use. Some pyroxylines yield a more viscous collodion than others; but if with the larger proportion, given above, it should prove too thick to flow freely over the plate, more ether and spirit can be added. Enamel collodion, ready for use, is supplied commercially at a low price, and many prefer to buy it rather than have the trouble of making it.

### *Applying the Prints.*

The plates, prepared as already directed, are coated in the usual manner, and when the collodion has very thoroughly set are put into a tray of cold water and allowed to remain, with occasional agitation, until all traces of the ether and alcohol are washed away. This may be known to be complete when the surface of the collodion ceases to appear greasy. We must now have ready the following gelatine solution:

| | |
|---|---|
| Nelson No. 1 photographic gelatin | 1¼ ounces. |
| Water . . . . . | 1 pint. |

The gelatine should be soaked in the water (cold) until thoroughly softened, and then dissolved by heat. This, after straining through muslin, is put into a dish, which is placed in another containing hot water to keep it warm—about 120° F. The print to be enamelled is immersed face downward in this for a minute or two. The plate, after rinsing under the tap, is then slid, collodion side upward, under the print, the two brought into contact, removed, and squeegeed together. A piece of thin india-rubber cloth — that known as nursery sheeting is best—is laid over the plate so that the squeegeeing does not injure the collodion, as, if it did, it would have a tendency to split up before the print upon it were dry. If it is gelatine prints that have to be enamelled, they should, previously, be hardened, either by alum or formalin. Otherwise, with some papers, the warm gelatine may have a tendency to dissolve that of the print. The plate may now be put away to dry. When thoroughly dry, and not before, the print can be stripped off, and will have an exceedingly high gloss. Much of this, however, may be lost in the mounting, if the print be put direct on the mount. Therefore it is better, after the plate and print has rested for an hour or so, to put another sheet of thick paper upon it. This paper should be soaked in the hot solution of gelatine until it has fully expanded and then be squeegeed on the back of the print. In place of using plain paper for this purpose, thick double transfer paper, as used in the carbon process, is more convenient in use, as it requires only to be softened in warm water to be at once ready for squeegeeing upon the print. With small prints a number are, of course, put on one large plate, and a great saving of time thus affected.

### *Trimming and Mounting.*

When the prints are stripped off the glass they are trimmed, and that is the more neatly done with one or other of the cutting machines now on the market. They are best attached to the mounts by a little glue applied just round the edges of the pictures. When the prints are stripped off, any collodion adherent to the glass should be scraped off with a knife, and the plates will then be ready for use again, simply by polishing with wax, or rubbing them over with French chalk. Indeed, the more the plates are used, provided they are not wetted, the less waxing or chalking they will require to prevent the collodion sticking.

*Enamelling with Celluloid.*

The above is the method most generally adopted, yet a far better way, and one that involves much less trouble, is to enamel with thin celluloid. This, however, requires a special, but not expensive, appliance, consisting of an iron slab, and a heavy iron roller, weighing from three-quarters of a hundredweight to a hundredweight, according to size, and some eight inches in diameter. The roller is heated, from the inside, by gas supplied by a flexible tube, and made as hot as the hand can well bear. The print to be enamelled is immersed, for a minute or so, in wood alcohol, drained, and laid, face upward, on the slab, with two or three thicknesses of blotting paper below it, to absorb the superfluous alcohol. A piece of the celluloid is then placed on it, and the heated roller passed slowly over it two or three times. The celluloid is thus caused to adhere firmly to the print. It will be seen that this system of enamelling involves far less trouble than that first described. It also has the advantage that the surface of the celluloid, being so much harder than that of collodion, is not so liable to become abraded by slight friction. Thin celluloid suitable for the purpose is sold in sheets 36 by 20 inches, and can of course, be cut to any size.

## PHOTOGRAPHING BAS-RELIEFS AND ALTO-RELIEFS

It is no uncommon thing for a portrait photographer to be called upon to depict something quite out of the usual rut of ordinary studio portraiture, and in such circumstances it is not uncommon that, owing to the photographer's unacquaintance with the craft, the result obtained does not give the satisfaction expected. We were forcibly reminded of this fact on seeing a photograph of a bas-relief which had been made by a portraitist whose ordinary pictures were really excellent, though such could not be said of the one in question. It is true that the picture was good so far as the photography was concerned; all the detail was there, but it was like a map or tracing of the design, being quite devoid of the modelling and rotundity of the original. This, by the way, was a head and bust of a female figure, which was said to be nearly life-size. It was certainly not such a reproduction as would meet with the approval of the sculptor who executed the original work. Its fault was simply in the lighting of the bas-relief. Had it been skilfully lighted, the result would have been quite different, and would have shown that it was from an actual bas-relief, and would not have appeared as if it were from an almost flat surface.

We shall now give a few practical hints on the illumination of basso- and alto-relievos when they have to be photographed, so as to avoid this flat appearance, for the benefit of such as may be quite inexperienced in this particular class of work. In the first place, after the subject has been placed in a suitable position in the studio, all direct front light should be stopped out; also all the light from one side of the studio. That being done, the next thing is to arrange the curtains on the other side so that the subject is lighted with a strong direct side light coming only from a somewhat narrow opening. When thus illumined, it will be seen that the proper appearance of rotundity is obtained, but it may, in these circumstances, be that the cast shadow

may seem a little too strong and abrupt. If that is the case the curtains should be opened a little more in advance of the subject—that is to say, nearer the camera, so as to admit a little more front-side light. That will soften the shadows without destroying any of the relief. On no account should light from the other side of the studio or any direct front light be admitted. The light must be all from one direction, and from one only, simply being made broader or narrower as occasion may require.

In the foregoing it has been assumed that the subject to be depicted is a white or light-colored one, but it may be that it is a dark one, such as bronze or possibly carved oak or other dark wood. In that case the same system is followed, though with some little modification. The light must still be from one direction only, but should not be so abrupt as before. More front-side light should be admitted, and then if the shadows, as is possible with very dark objects, seem too deep and heavy, they may be softened by a reflecting screen arranged in such a way that it throws back only just enough light to soften them and no more. The reflected light should be used only to just give transparency, but nothing more, as the shadows should be strong but yet possess transparency. In arranging the reflector care must be taken that no false lights are produced. With dark subjects, particularly if they are in high relief, a very full exposure should always be given, otherwise, although the lighting may be perfect, the result will not be satisfactory, as the shadows will be lacking in transparency, and therefore seem dark and heavy.

In the case of alto-relievos, the same system is again followed, but here the lighting should be still less abrupt—that is, more front-side light should be employed and from a somewhat wider area, otherwise the strong cast shadows from the more prominent portions may interfere with the detail in the others. That will be obviated by so regulating the curtains that the high side-front light is admitted through a wider opening. In the foregoing it has been assumed that the work is done in the photographer's own studio. It sometimes happens, however, that it has to be done in that of the sculptor. In that event the photographer is usually relieved of the matter of lighting, as the sculptor will prefer doing it himself in such a way as will give the proper modelling in the subject—usually the lighting will be the same as that in which the work was executed by him. It will then be shown to its best advantage.

Instead of having a basso- or alto-relievo to deal with, it may be a marble or bronze statue or bust that has to be portrayed. In this case the photographer will feel more at home, because the work does not differ materially from ordinary portraiture. In the case, say, of a marble figure, the lighting should be so arranged that the shadows are stronger than would be desirable in the portrait of a sitter, so as to obtain the necessary rotundity. But while the shadows are made strong and pronounced, the lights must not be neglected. They must not be white and bald. If they appear to be so when the shadows seem to be right, they may be subdued by the interposition of a tissue paper, or thin muslin, screen between the light and the subject. This may be held in the hand and utilized during a portion of the exposure only.

In the case of bronze subjects it is not quite such plain sailing as in the case of, say, marble. Here the light should be as before—from one direction only. The best will be a high side-front light, but with a broader area than is desirable with light objects, such as marble or parian. In this way the

shadows can be obtained with all the necessary transparency, and usually without recourse to reflectors, though in some instances the latter may be found necessary. One thing to be specially avoided in depicting bronze subjects is reflections from the brighter portions. It is impossible to lay down any set rules in this matter, as so much must necessarily be governed by the general character of the subject that has to be dealt with. But the work will be much simplified if it is kept in mind that the angle of reflection is always equal to the angle of incidence. If the angle be, we will say, one of 45 degrees, which, as a rule, is a suitable one for what we are now considering, the light will be reflected at a similar angle, and quite away from the lens. If it should so happen that the bronze object has several reflective portions which send the light at several angles, it will be a good plan to soften the light somewhat by the aid of a tissue-paper screen, or an ordinary muslin head screen may be used with advantage.

It sometimes happens that a bas-relief has to be photographed *in situ* in some building, such as a church or cathedral, where the subject is lighted from several directions. Here the photographer will often find himself handicapped in getting the best possible result. But by applying the system above explained the work can generally be successfully accomplished by borrowing from the studio two or three curtains, and then, with the aid of string, pins, tacks, and the like, the subject can usually be so enclosed that it is practically illumined from one direction, and all direct front light stopped away, or at least so far subdued that it has little or no effect on the photographic plate.—*British Journal of Photography.*

## VARIOUS METHODS OF COLOR PHOTOGRAPHY.*

PROBABLY every one in these times is well aware that when he perceives a colored object that object is visible, and appears colored because it transmits colored rays of light to his eyes.

The object cannot be seen as colored unless it gives off colored light of itself, or reflects colored light which has already fallen upon it. All the beautiful colors of nature, with very few exceptions, are derived directly from the sunlight which has fallen upon the various objects, and has been reflected back to the eye. Now, that being so, it is clear that all those colors must be contained in sunlight, although in the ordinary way it is white. If the sunlight is allowed to pass through the spectroscope, the fact that this white light is really composed of colored light is at once shown. The beam of white light that passes into the instrument has become spread out, when it emerges into a broad band in which it is easy to distinguish the colors—red, orange, yellow, green, blue, and violet.

The spectroscope does for light what the chemist does for substance when he analyses it, or splits it up into its component parts, and shows of what it is made. This proves that light is composed of various colors.

I do not think it would be out of place were I to deal with the earlier methods of color photography from the fact that the Lumière plate to a certain extent is a composition of the various processes which have gone before.

Let us note in passing, that by the undulatory theory light of different colors is assumed to be waves of different length. The actual size of the waves of light is extremely small—ultra-

* A lecture given before the Edinburgh Photographic Society by Mr. Victor L. Alexander.

microscopic. Taking the unit of wave length as one ten-millionth of a millimeter, the red waves will be one thirty-five-thousandth of an inch, and the violet one sixty-two-thousandth. One of the peculiarities of wave motion is that it is a world where twice two are no longer four, but may be under certain circumstances nothing. For if we can imagine two series of waves proceeding along the same path, if the hills of the one coincide with the hills of the other, and the valleys of the one with those of the other, then the combined effect, we might see, would be twice as great as that of one. But if it so happened that the wave formation when on the same path were in exactly opposite phases, and were brought together while in their relative positions, then we would no longer get the waves of one reinforcing those of the other, but counteracting them; so that, instead of doubling the curvature, we should get a straight line. And in the same way, if two beams of light were similar and equal, but in exactly opposite phases, one would neutralize the other, and we should be able by adding one beam of light to another to produce darkness.

This has actually been done, and is a common physical experiment. It has also a direct bearing on the Lippmann process.

The waves of light pass through the sensitive film to the mercury, which reflects them back upon themselves, 92 per cent. reflected light. The result is where the crests of one set of waves coincide with the hallows of the reflected waves the two neutralize one another, and there is in that part of the film no light action at all. Where the crests of the direct and reflected waves coincide they reinforce each other, and there is a maximum of light action. The consequence is that in the developed Lippmann film we get a series of layers of deposit or image, separated by layers where there is no image. The intervals between these layers correspond in size with the wave lengths of light itself. The film thus split up into alternate layers of image and no image appears colored for the same reason that a soap bubble or mother-of-pearl, or even a drop of tar on the surface of water appears colored. Such colors are not inherent in the substance that exhibits them. Soap suds are colorless enough, mother-of-pearl ground up is nearly a white color, while tar is brown-black. The colors are called "colors of thin films," and are caused by the fact that the film of substance showing them is extremely thin, so thin in fact that its total thickness is comparable to the length of the waves of light themselves. It is in consequence of certain properties of thin films that the thin layers of the Lippmann film appear of the same color as the light which causes them. The plate is redeveloped with amidol, and after being well washed it is dried, when the colors can be distinctly seen. If a section be cut and examined with the microscope, the color waves can be actually seen.

In the Joly process a plate is used ruled with lines of blue, green, and red, from which a negative on a panchromatic plate is taken, and a transparency made from that negative is placed in contact with a plate ruled blue, green, and red.

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Mr. F. Harry Hall asks us to advise that he has resigned his position as manager of the photographic department of the firm with which he was formerly connected, and has been appointed sales agent for Fuerst Brothers, 2 Stone Street, New York City, who intend placing on the market a complete line of developing agents of unusual excellence. A list of the new products will be sent out within a few days. Mr. Hall, who during the last few years, has made thousands of friends for himself in the photographic trade desires to express his sincere thanks for the many favors and generous support he has received in his work, and the hope that this confidence and goodwill will be extended to him in his new connection.

## REVIVING FADED PRINTS.

In looking through the family portrait album, one cannot avoid being struck by the number of "counterfeit presentments" of more or less illustrious ancestors, which are turning yellow with age and thus losing all semblance of portraits.

It is obviously desirable to stop this decay, and fortunately the means of so doing is very simple.

If the print be unmounted, it is only necessary to immerse it in the following bath:

| | |
|---|---|
| Mercuric chloride . . . . . | 1 gram. |
| Water . . . . . | 100 c.c. |

Allow the print to stay in the solution until the last traces of yellowness have gone, then wash thoroughly to get rid of the mercury compound.

But if, as is more likely, the print be mounted, a slightly different method of procedure must be adopted. Cut a piece of white blotting paper to the same size as the print and soak it in the above-mentioned solution of mercuric chloride. Lift out and allow the superfluous liquor to drain off; then lay it carefully on the print and keep the whole in close contact in a press or beneath a weighted board. After a short interval examine the print, and if need be repeat the operation. Meanwhile, prepare half a dozen similar pieces of blotting paper, and when the whole of the yellow color has been removed from the photograph, it may be washed by placing successively in contact with it the six sheets of blotting paper previously soaked in clean water. Allow to dry, and the print will be found to be very greatly improved. The original purple is in many cases not restored, being replaced by a warm brown, very pleasing to behold, and suggestive of the modern non-toning papers.

As to the permanency of this method of restoration, there seems to be no reason to doubt but that it is in no way inferior to any ordinary silver process.

Another method of restoration must be mentioned, though "restoration" is hardly the best term for it, as will be seen.

The picture must be soaked in "lukewarm" water to remove the mount, and then thoroughly dried in a warm place. When dry, melt some paraffin wax in a clean tin and dip the photograph into it. Drain quickly and lay it between two sheets of white blotting paper, then press it with a fairly hot flat-iron to squeeze out the excess of wav. While still hot lay the photo on a warmed board and rub briskly with a pledget of absorbent cotton until it is cold. This forces the wax into the fibres of the paper and renders it semitransparent, at the same time greatly deepening the contrasts. Small details previously unseen now appear as in a glass transparency, and the yellow-whites are made translucent, though the shadows and half-tones are very little changed.

The translucent whites and nearly opaque shadows fit the picture in its present condition for printing purposes, and therefore a negative should be made from it. From this reproductions in any style, or enlargements in any size, may be obtained, the permanence of which depends entirely upon the worker. The old print may be mounted between glasses for use as a transparency, or may be used flat in a slip in mount. —F. G. Palmer, in *The Photographic Monthly.*

## THE PENNSYLVANIA CONVENTION.

THE annual meeting of the Professional Photographers' Society of Pennsylvania was held at Philadelphia, May 4, 5 and 6, under the leadership of President Ryland W. Phillips. Its characteristic features were a miserably small attendance, unbounded enthusiasm among those who did attend, a spirited programme of practical papers, discussions and demonstrations well carried through, an exhibition of portraiture which attracted little attention from either members or the public, and the inevitable banquet.

The address of welcome at the first business meeting was given by Mr. Leslie W. Miller, the head of the Philadelphia School of Industrial Art, after which the President spoke at length upon the growth of the Society and its purposes. He said in part: "I always advise the photographer to take advantage of an opportunity such as these societies bring to get out and away from his own environment, study other men, study other men's work—the impressions which are made on others, what kind of men you are associated with in your profession. This is one of the big things the State organization has done for us. There are other and bigger things. We must have a larger organization. We must become more comprehensive; we must become more representative, and the individual must take up the burden in that direction. As yet we are very small in numbers while strong in enthusiasm; but we must get out and hustle if any real reform work is to be done for the profession."

Communications were then read from several sections and local societies throughout the State. These showed that although the photographers of Pennsylvania are remiss in the active support of their State society, they are keenly alive to the advantages of fraternal organization along local lines and attend their local meetings in generous numbers. It was evident that the per capita tax of $3 required when a local society affiliated with the State body was an obstacle in the way of sectional growth, and at a later meeting this tax was reduced to $1 per member which will doubtless cause the membership of the sections to grow more rapidly.

At the second business meeting Mr. George Harris, of Washington, D. C., presented an extremely interesting paper on "System," showing a method of keeping books and accounts suitable for small and large galleries. Among other points emphasized in his paper was the following:

"There are only two ways to increase your earnings. Build up business without additional expense, or cut down expense without loss of business. Good book-keeping does this for you. Comparison of expense each year, month by month, of salaries, stock, and general expense, soon teaches and trains the eye to see items that you don't need. Comparison of business in the same way soon makes you keen to know what pays and what does not. It brings your business into your hands, and makes it easy to control? You are not guessing, *but you know.*

"It suggests follow-up plans for your re-sitting orders, your collections, and if you use a good card system, the back of the card can be used to keep you posted on what has been done to follow up each customer.

"All the successes of the large business interests of this country today have

been built up on the comparison and follow-up plan; and if this must be done for the success of the big interests, follow the same general plan."

Mr. Frank R. Barrows, President of the National Association, and Mr. George G. Holloway were present at this meeting, and addressed the conventioners in an informal way. Various amendments to By-laws were then put to the vote and passed, after which Mr. George G. Rockwood, of New York, was invited to the platform and delivered a stirring address on "Business Subjects," which was received with enthusiasm.

The third business meeting, May 6, was largely attended. As the final meeting, it was devoted to reports of committees, votes of thanks, and similar matters. The election of officers for the ensuing year resulted as follows:

William H. Rau, President, Philadelphia; George W. Harris, First Vice-President, Washington, D. C.; E. W. Brown, Second Vice-President, Beaver, Pa.; H. Rudolph Pott, Secretary, Philadelphia; William Goldman, Treasurer, Reading, Pa.

Local sections comprising Pittsburg, Harrisburg, and Scranton were formally affiliated to the State Society. On motion, the next convention of the Society was appointed to be held in May, at Philadelphia. Mr. Frank R. Barrows then spoke at length on the forthcoming convention of the National Association, at Rochester, and urged the Society to send an official delegation to that meeting. This suggestion was acted upon, Messrs. Phillips, Seavy, and Hornbaker, being appointed delegates. The meeting then adjourned.

The skylight demonstrations by Messrs. Bradley, Hoyt, and MacDonald, of New York, and Phillips, Ellis, Dooner, and Elliot, of Philadelphia, were followed with intense interest, and proved the outstanding feature of the convention, the action of Mr. E. Goldensky in giving up his studio for these demonstrations being warmly commended, apart from the official resolution of thanks from the Society.

## REDUCED RAILROAD RATES TO THE ROCHESTER CONVENTION,

### Rochester, N. Y., July 10 to 24, 1909.

Do not fail to ask for certificate when purchasing ticket to Rochester, which entitles you to three-fifths fare returning.

Certificates are issued at the time the going ticket is purchased, and may be secured from July 15 to 21, inclusive. Make inquiry of your local ticket agent to ascertain if he is supplied with certificates; if he is not, he will advise you of the nearest point where they can be secured.

Present yourself at the ticket office at least one-half hour early, that you may not be detained from procuring your certificate before the departure of the train.

Immediately upon your arrival at the Convention Hall deposit your certificate with L. A. Dozer, Treasurer, at the Box Office. The special agent of the railroad associations will be at the Convention Hall to validate certificates from 9 A.M. to 6 P.M. of July 22, 23, and 24. A charge of 25 cents will be made for validating each certificate. If you arrive at the Convention later than July 24, the validating agent will have left, and you wil therefore be unable to get the benefit of the reduced fare home.

To secure your return passage home, present your validated certificate at the railroad office, and the agent will supply you with your return-trip ticket upon payment of three-fifths of the amount of the fare paid for going ticket.

Return-trip tickets may be purchased with certificates at reduced rates from July 22 to midnight of July 28.

The following railroad associations have allowed the reduced railroad rates:

The Trunk-line Association comprises the States of New York, Pennsylvania, West Virginia, New Jersey, and Delaware, with the following railroads offering reduced fares: Baltimore & Ohio; Buffalo, Rochester & Pittsburg; Chesapeake & Ohio; Cumberland Valley; Erie; Fonda, Johnstown & Gloversville; Lehigh Valley; New York, Phila. & Norfolk; Pennsylvania; Philadelphia &

Erie; West Jersey & Seashore; Western Maryland; Buffalo & Susquehanna; Central of New Jersey; Chesapeake S. S. Co.; Delaware & Hudson; Delaware, Lackawanna & Western; Jamestown, Chautauqua & Lake Erie; New York Central & Hudson River; Norfolk & Washington S. S. Co.; Northern Central; Philadelphia, Baltimore & Washington; Pittsburg, Shawmut & Northern; West Shore.

The New England Passenger Association comprises the States of Maine, New Hampshire, Vermont, Massachusetts, Connecticut, and Rhode Island, with the following railroads offering reduced fares: Boston & Albany; Canadian Pacific (Eastern lines); Grand Trunk; N. Y., N. H. & Hartford (including Sound Lines N. E. Nav. Co.); Boston & Maine; Central Vermont; Maine Central.

Eastern Canadian Passenger Association, comprising the provinces of eastern Canada, with the following railroads offering reduced fares: Algoma Central & Hudson Bay; Boston & Maine; Canadian Northern Ontario; Canadian Pacific (Eastern lines) Central Vermont; Grand Trunk; Irondale, Bancroft & Ottawa; Michigan Central; Orford Mountain; Pere Marquette; Quebec, Montreal & Southern; Temiscouata R. R.; Toronto, Hamilton & Buffalo; Bay of Quinte; Brockville, Westport & Northwestern; Canadian Northern Quebec; Central Ontario; Dominion Atlantic; Intercolonial R. R.; Kingston & Pembroke; N. Y. Central & Hudson R. R.; Ottawa & N. Y.; Quebec Central; Rutland R.R.; Temiskanning & Northern Ontario; Wabash R. R.

Navigation companies making special rates, which may be had upon application: Huntsville, Lake of Bays & Lake Simcoe Nav. Co.; Muskoko Nav. Co.; Northern Nav. Co.; Pembroke Co.; Rideau Lakes Nav. Co.; Niagara Nav. Co.; Ottawa River Nav. Co.; Richelieu & Ontario Nav. Co.; Trent Valley Nav. Co.

Central Passenger Association, comprising the States of Ohio, Indiana, lower Michigan, and that part of Illinois south of a line drawn from Chicago to Keokuk, with the following railroads offering reduced fares: Ann Arbor R. R.; B. & O. Southwestern R. R.; B., R. & P. Ry.; C. & E. & Erie R. R.; C., R. & M. Line; C., H. & D. Ry.; D. & B. S. Co.; C. & O. Ry.; E. & I. R. R.; G., R. & I. Ry.; L. E. & W. R. R.; L. H. & St. L. Ry.; Mobile & O. R. R.; O. Central Lines; P. & L. E. R. R.; T., St. L. & W. R.R.; Wab., Pitts. Ter. Ry.; B. & L. E. R. R.; Chicago & Alton R. R.; C., I. & L. Ry., C., R. I. & P. Ry., C. & B. Transit Co.; D. & C. N. Co.; D., T. & I. Ry.; E. & T. H. R. R.; G. T. Ry. System; L. S. & M. S. Ry.; M. C. & C. R. R.; N. Y. C. & St. L. R. R.; Penna. Lines; P., L. & W. R. R.; Vandalia Ry.; W. & L. E. R. R.; Big Four Route; C. & E. I. R. R.; C., I & S. Ry.; C. & M. V. R. R.; Cleveland & Toledo Line; D. & M. Ry.; D., A., V. & P. Ry.; Ft. W., C. & L. R. R.; Hocking Valley Ry., L. & N. R. R.; Mich. Central R. R.; Northern O. R. R.; Pere Marquette Ry.; Southern Ry. (St. Louis div.); Wabash R. R.; Z. & W. Ry.

The Western Passenger Association, comprising the States of Minnesota, Wisconsin, South Dakota, Iowa, Nebraska, Kansas, and Missouri north from a line drawn from St. Louis to Kansas City, and North Dakota east of Bismarck. From a number of points in these States tourist rates may be secured to Chicago, from St. Louis and Chicago certificates may be secured for the three-fifths return-trip fare. Photographers in these States desirous of attending the Convention should make inquiry regarding these rates in advance. Local ticket agents will supply the information.

Southwestern Passenger Association, comprising the States of Texas, Arkansas, Oklahoma, and Missouri south of a line drawn from Kansas City to St. Louis. This Association instructs to advise photographers that a low summer tourist rate will be in effect to Rochester at the time of our Convention. An early inquiry of your local ticket agent will give you definite information.

Certificates may be procured from Cairo, Ill., and St. Louis to Rochester on the basis of one fare going and three-fifths fare returning.

Southeastern Passenger Association, comprising the States of Kentucky, Virginia, Tennessee, North Carolina, South Carolina, Mississippi, Alabama, Georgia, Florida. Photographers in this territory are promised no specific reduced rate by this Association, but are requested to inquire as to such tourist rates as may be in effect to Rochester at this time. Parties living in this territory may secure certificates at the reduced rates from borderline cities of Indiana, Illinois, and Ohio; also from Huntington, Chartottesville, and Charleston, W. Va., and Washington, D. C.

For the information of those living in States not mentioned in this list, would advise that no reduced rate concessions have been secured.

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*Converting the Newly Developed Negative into a Positive.* This matter has taken a new interest since the advent of the autochrome process, and if we may judge by the recent experience of Mr. W. T. Wilkinson, success depends largely on the use of a slow plate, most commercial rapid plates giving fogged and unsatisfactory results. After development and washing, the plate is exposed to light under water until one tint has been registered on Watkins' meter, after which the image is dissolved out in a solution containing 150 grains of potassium bichromate and 1 dram of nitric acid to 10 ounces of water. The action of this being complete the plate is washed, treated with an acid sulphite solution to remove the bichromate stain, and re-developed.

# TRADE NOTES.

KODAK ADVERTISING COMPETITION FOR 1909. It should be borne in mind that the Eastman Kodak Company are offering five prizes in the professional class in this competition: $500, $400, $250, $150, and $100. This is big money for a negative, and will repay much effort to secure some of it. The successful competitiors are the ones who combine advertising ideas with good technical work. It must be work that will reproduce well, work that is snappy and vigorous. You had better try, for you may have an idea that will win.

YOURS FOR THE ASKING—*The Twin Books of Photography*, a complete photographic library in two volumes; all about Cyko paper and Ansco films; full of useful information on the making of good negatives and good prints. The Ansco Company, of Binghamton, N. Y., will be glad to send you copies on request.

BURKE & JAMES report very gratifying sales of the well-known Dallmeyer lenses, for which they have the sole American agency. This lens has long been favorably known in this country and is living up to its reputation for quality made many years ago.

FOR getting out the summer rush of souvenir post-cards the automatic contact printing frame made by the Vote-Berger Co., of LaCrosse Wis., is an invaluable aid. We recently watched one of these machines working at high pressure, and were impressed with the smoothness and rapidity at which the post-cards were produced. Of course, it is quite as convenient for ordinary development prints.

HOTEL SENECA, Rochester's new fireproof hotel, has been selected as headquarters of the National Association during convention week. This splendid hotel, ranking with the finest hostelries in the country, offers the best accommodation in the city. As headquarters it will be the centre of convention activity and interest. The rates are reasonable, and to make sure of your room it is advisable that you write to manager Woolley at once, so that you may not be disappointed.

THE many friends of Mr. George L. Barrows (who has been associated with the photographic trade for the past fifteen years) will be pleased to hear that he has secured the management of the photographic department of the Berlin Aniline Works, who are the American distributers of the well-known Agfa products. Mr. Barrows expects to personally visit the trade throughout the country, and looks forward to a generous compliment of orders.

ARTURA RESULTS. The Artura Photo Paper Company, Columbus, Ohio, send to our table the seventh edition of their booklet, *Artura Results*, which is now ready for distribution, and can be had for the asking. It is a fifty-two page booklet giving full instructions for handling the different brands of Artura and many valuable formulæ and hints. We note that the contents have been carefully re-arranged, and there is a full index for ready reference. All photographers using developing papers should get this little booklet and give it a careful reading.

*Portrait*. This is a new professional magazine published by Ansco Company, Binghamton, N. Y., and designed to keep the photographic world fully informed about art and profit in photography by the Ansco way. The cover of *Portrait* is intended to serve as a "Hall of Fame," and Mr. Pirie MacDonald, of New York, has the honor of the first place, a capital portrait of this gentleman occupying the cover. Our readers will do well to send their names and addresses for record on the mailing list of this new journal.

A NEW sensitizer for the home preparation of photographic papers is being placed on the market by the Chemical Arts Company, Oak Park, Chicago. This concern is new in the photographic world, but proposes to fill a very useful field in supplying to photographers their new sensitizer, photographic papers, and chemicals. Write for their new booklet, which contains some very attractive information. A print sent us by the Company as an example of the results produced by their sensitizer shows a very charming sepia-brown effect on tinted paper.

STUDIO LIGHT AND THE ARISTO EAGLE, for May, is received, and in addition to announcing novelties in photographic apparatus and supplies gives valuable articles on advertising in photography and the making of a drying cupboard for negatives, together with a changing table for the dark room. *Studio Light* is sent free to professional photographers by the publishers, Eastman Kodak Company, Rochester, N. Y.

*The G. Cramer Dry Plate Company*, of St Louis. take pleasure in announcing the addition to their staff of Mr. R. James Wallace, F.R.A.S., F.A.P.S., etc., the noted photographic investigator. Mr. Wallace comes direct from the Yerkes Observatory of the University of Chicago faculty, leaving the position which he occupied there as head of the department of photophysics to undertake the direction of the factory research laboratory. The possession of a thoroughly equipped chemico-physical research laboratory devoted especially to this work, and which is probably unequalled by any other worker in this country, guarantees the quality of the test to which new products will be subjected, while the published work and prior commercial experience in trichromatism and general photo-engraving assures intelligent consideration of the needs of this large and constantly increasing class of workers. Consultation upon special technical matters connected with photography of light and color will receive prompt and careful consideration, and suggestions offered when necessary.

# WILSON'S PHOTOGRAPHIC MAGAZINE

A MONTHLY MAGAZINE FOR PRACTICAL PHOTOGRAPHERS

Founded in 1864 by EDWARD L. WILSON
L. W. WILSON, Publisher and Proprietor
T. DIXON TENNANT, Editor

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## EDITOR'S TABLE.

THE Photo-Secession is holding at its "Little Galleries" an exhibition that is quite unique. It consists of a series of seven photographs of Rodin's famous "Balzac," which created such a sensation in Paris in 1900. These prints are from a series of negatives made by Eduard J. Steichen, with a full moon as the sole source of light. They will rank as the best work that Steichen has yet done, and are splendid examples of what photography is capable of in its highest development. The exhibition will remain open until May 7, and should not be missed by any photographer who has an opportunity of seeing it. The "Little Galleries" are at 291 Fifth Avenue, New York.

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WE regret to announce the death of Mr. John L. Yatman, who for ten years represented the Voightländer Company. Mr. Yatman was a thoroughly qualified lens expert and was ever ready to impart his knowledge. He was widely known and highly respected, and his sudden death, while visiting Memphis, Tenn., in the interests of his firm, will be lamented by his many friends in all parts of the country.

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FROM Wilhelm Knapp, of Halle a S., Germany, we have received a copy of von Hubl's "Die Theorie und Praxis der Farbenphotographie mit Autochromplatten," being a very thorough and exhaustive pamphlet on the theory and practice of autochrome photography. Arthur von Hubl is, perhaps, one of the greatest living authorities on color photography. The price is two marks. Anyone reading German, and who is interested in autochrome photography, will find this a most useful handbook.

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SPEAKING of autochromes reminds us that soon after these plates appeared Mr. Alfred Stieglitz made a series of experiments with a view to simplifying the process and reducing the number of solutions necessary for their development. He was roundly taken to task by one of the English photographic journals for presuming to know more than the inventors of the plate themselves. The Lumières, however, have now issued some simplified instructions, bringing the solutions necessary down as low as two. It would seem that Mr. Stieglitz was not so presumptuous after all.

THOSE of our readers who intend to exhibit at the National Convention, at Rochester, July 19 to 24, are reminded that to secure accurate listing in the catalogue, Mr. A. T. Proctor, Huntington, W. Va., should be notified at an early date of your intention to exhibit. You are invited to send four to six framed pictures—no restriction as to size.

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RIGHT after the glorious 4th, that is, July 6, 7, 8, and 9 the Indiana Convention will be held at the famous Daguerre Memorial Institute, Winona Lake, Indiana. The enterprising officers of the Convention Association have taken "progress" for their motto, and promise a meeting which in interest and usefulness will eclipse anything yet done in Indiana. They expect the biggest attendance in years, and have arranged their program accordingly. Mr. W. S. Lively, of the Southern School of Photography, is to have full charge of the class work, and this means that the practical technical work of the convention is bound to be both systematic and successful.

The diamond medal trophy offered is the most elaborate prize of this kind put up by any photographic association. It is open to all photographers outside the State of Indiana, and is expected to bring the choicest exhibit of work shown this year. A hearty welcome is extended to photographers throughout the middle west to visit Winona Lake during the Indiana Convention, and all exhibits will be welcome. The secretary, E. K. Shalley, Berne, Indiana, will be glad to forward full particulars on request.

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THE C. P. GOERZ AMERICAN OPTICAL COMPANY have arranged with the Ansco Company of Binghamton, N. Y., so that the latter Company can hereafter supply to the trade Goerz lenses and Ansco cameras fitted with Goerz lenses under the same conditions and at the same prices as the Goerz American Optical Company. The growing demand for Ansco cameras fitted with Goerz lenses makes this arrangement a convenience which the trade will appreciate.

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WE are asked to state that Mock's photo varnish for finishing development papers will be on sale at the Convention in Rochester, so as to afford photographers an opportunity of becoming acquainted with this specialty

By J. M. Brigham, Battle Creek, Mich.

# WILSON'S PHOTOGRAPHIC MAGAZINE

FOUNDED IN 1864 BY EDWARD L. WILSON

VOL. XLVI JULY, 1909 No. 631

## LAST CALL: ROCHESTER CONVENTION, JULY 19 to 24, 1909.

IN a little more than two weeks the greatest photographic event of the year —the annual meeting of the P. A. of A. —will take place at Rochester, and we would again urge the special claims of this particular convention upon every professional photographer within the United States and Canada.

If you have not already done so, you would do well to send your dues to Mr. L. A. Dozer, Bucyrus, Ohio. This will put you in good standing with the Association. Three dollars membership fee and two dollars annual dues is the modest fee, and as it comes back to you many times over there is no need to hesitate. It will be a wise precaution if you engage your room at a hotel.

If you wish to be represented in the picture display, write to Mr. A. T. Proctor, Huntington, W. Va., and ask him to reserve space for the number of pictures you intend to send; six pictures are allowed to each exhibitor.

If you are going to close your studio, take advantage of the convention and put out a neatly printed card advising your customers that you are attending the National Convention of Photographers, and will return with all the latest and most up-to-date ideas in portraiture. It will pay you much better to close the studio and put out the above notice than it will to stay at home and keep in the same old rut. The crowd that will stand and watch an airship would not turn its head to see a railroad train.

There is no excuse for any professional photographer not going to the Rochester Convention. The man who goes to a convention to learn something of the practical end of his profession will be shown "how to do things" in a more thorough manner than has ever before been attempted. There is a school of instruction, classes in which will be taken by such eminent craftsmen as Bradley and Core, of New York; Phillips, of Philadelphia; Somers, of Cincinnati; Towles, of Washington; and last, but not by any means least, Mrs. Gertrude Kasebier, whose services Mr. Barrows has been fortunate enough to secure.

This instruction session is to be held under the leadership of Ryland Phillips, of Philadelphia. It would be impossible to secure in any other way and for any sum of money the information and help that these instructors will liberally and cheerfully place at your service during the convention. Mr. Phillips, we learn on good authority, has refused a good pecuniary offer for the publication rights of his lantern lecture, which, as a member

of the Association, it is your privilege to hear. Mrs. Kasebier's portraits have a world-wide fame. At the convention she will do her best to show you how she gets her results.

This feature of the convention alone is worth more than the annual dues if you lived to be as old as Methuselah.

To the man who goes to the convention to study the picture exhibit the Rochester meeting offers the greatest display of professional portraiture that has yet been gathered together on this continent. To mention the names of exhibitors would be to fill our columns with a list of the best photographers from every State in the Union, and Canada will be well represented. We have seen the written promises to exhibit, of more big men than have ever before been brought together under one roof. The picture exhibit will be one to be remembered.

For the man who goes to convention for "a good time", Rochester will certainly give him the greatest and most enjoyable time he ever had or hopes to have. The home city of so many huge photographic enterprises, the manufacturers will be able to dispense hospitality under their own roof tree, and they may be relied upon to do it thoroughly. Elaborate plans are being made and will be carried through with a completeness that will meet with the approval of the most exacting. Out of consideration for our many readers in foreign climes who are unfortunately too far off to participate, we will forego a more detailed description of this great convention.

Read what President Barrows has to say below, and take active measures to insure your presence at the opening session at Rochester on the morning of July 19.

## BIGGER, BUSIER, AND BETTER.

### The Rochester Convention, July 19 to 24, 1909.

EVERY photographer who journeys to the Rochester convention this year will return to his home, the week following, assured of the fact that to keep pace with the times one must meet his fellow workman in time and place where the knowledge of years is dispensed freely and without cost. This is what is proposed at the Rochester Convention. The Association takes pleasure in announcing the names of the following photographers who will take charge of the classes of instruction in the schools of photography arranged by the Association:

Monday, 9 A.M., A. F. Bradley, New York.
Tuesday, 10.30 A.M., F. M. Somers, Cincinnati.
Wednesday, 8 P.M., Ryland W. Phillips, Philadelphia; Gertrude Kasebier, New York; Lantern Exhibition.
Thursday, 10.30 A.M., E. B. Core, New York, assisted by Frank Scott Clark, of Detroit.
Friday, 11 A.M., W. H. Towles, Washington.
Saturday, 11 A.M., Showing complete results of demonstrators' work, by lantern projection.

The school program for the week will be under the leadership of Ryland W. Phillips, of Philadelphia, who does things well. He will be ably assisted by Vice-President J. H. C. Evanoff in carrying out his plans, all of which speaks for the success of the school.

When it is possible for an Association to assemble talent of this caliber for mutual improvement, its members should appreciate the fact that they are not secured by pecuniary considerations.

They give freely of their knowledge and valuable time to uplift and advance the movement of associated interests in photography, purely from a fraternal standpoint.

An entirely new and novel feature in convention class work will be shown for the first time at this convention. Through the courtesy of the Bausch & Lomb Optical Company there has been constructed, for our use, a new projecting lantern which will allow our members to see negatives intensified or reduced upon the screen, and also show the results of the various class leaders. As fast as the negatives are made under the light they will be developed and lantern slides made from them. The time occupied for the completion of these slides ready to show upon the screen will be less than one-half hour. By the time the last negatives are made in the class demonstrations the final results will be ready to show upon the screen.

Saturday morning the devices or inventions will be shown and demonstrated for the following prizes:

First prize, $100 cash.

Second prize, a handsome hand-bound set of *The Library of Practical Photography*, valued at $75, the courtesy of J. B. Schriever.

These awards to be given by popular vote of the convention.

After this business the closing feature of the week will be the showing of the complete results and finished pictures of the various demonstrators, which in the final results will embody their individual ideas. A slide of the crude negative will first be shown, then followed by a slide made from a picture ready to deliver to a patron. Don't fail to get this instruction.

The business sessions will occur on the mornings of Tuesday, Thursday, Friday, and Saturday, at 9 A.M. sharp, in the Assembly Hall of the Seneca Hotel, the headquarters of the Association. These sessions will be called promptly on time. They are to be short, snappy sessions, in order to clear the way for the school classes on the same mornings. The afternoon and evenings of the week will be engaged as follows:

Monday afternoon, at 2 o'clock, the various State representatives will assemble at the Chamber of Commerce Hall for organization of the first Congress of Photography, its object being to discuss and, if practical, to devise a plan of coöperation of the State and National Associations. Let no delegate who has thus been honored by his State be absent; your obligation is your duty. Let nothing hinder your presence, as a full representation is desired. All duly accredited delegates will receive their credentials at the box office in Convention Hall.

On Monday night there will be a reception of members at the Seneca Hotel.

Tuesday afternoon the Chamber of Commerce Hall is reserved for the continuance of the Congress of Photography. By so doing it is hoped to have a report ready preparatory to the discussion of the Constitution and By-laws of the P. A. of A. on Tuesday night.

Tuesday afternoon is Ladies' afternoon. They are to be entertained by the Rochester Section of the New York State Society. This outing will include a trolley trip to the beach, where the guests will board the steamer for a sail on Lake Ontario. While on board they will be entertained in various ways, returning to the city of Rochester about 6 P. M., and a most enjoyable time is assured. Wednesday is given over entirely to the manufacturing industries of Rochester, and many of them are preparing to make you welcome and entertain you. Their places of business will be open from 8 A.M. to 6 P.M. The Rochester firms have agreed to close their respective places of business to-

visitors on all other days of the week, thereby avoiding a conflict with the regular convention program.

Wednesday, 8 P.M. sharp, presents the most instructive night of the convention under the leadership of Ryland W. Phillips, assisted by Mrs. Gertrude Kasebier. Mr. Phillips, in his own practical way, will give illustrations of the work of leading studies, showing how many of the best photographers work their skylights in producing the beautiful work so familiar to all of us. *Get this information.*

Mrs. Kasebier will give an art criticism of her own work, and her talk is sure to be of great value to her fortunate hearers. Mrs. Kasebier is one of the foremost women photographers, and our association is most fortunate in securing her services. *She will have something to say.*

Thursday and Friday afternoons the Canadian photographers will meet in the Chamber of Commerce Hall for the transaction of business of the Photographers' Association of Canada.

Thursday, from 5 P.M. till midnight, everybody will be entertained by the Eastman Kodak Company at Ontario Beach. Tickets will be supplied for this entertainment, to include transportation to and from the beach, admission to the Park, and a seat at the banquet table. In short, an old-fashioned picnic, where happiness is to reign supreme for photographers, dealers, and the ladies.

Friday night is reserved as manufacturers' and dealers' night, and a good night of enjoyment is assured. Details will be announced later.

In arranging the week's program, every afternoon has been given over to the manufacturers and dealers, there being no business sessions or school classes during the afternoons. This gives our members the opportunity to inspect the wares of the merchants and to study the art exhibits.

Remember that every hour of the time during the week has been provided for. Therefore, follow the printed program which will be circulated at Convention Hall.

*Of all things, be on time,* and there will be no regrets afterward. Everybody must keep moving, as the program will be followed on schedule time.

There will be the largest attendance of photographers in Rochester ever before assembled, and for this reason you should secure your hotel accommodations early. The following hotels are all first-class:

Hotel Seneca (Headquarters) European Plan, $1.50 to $4.00 per day.
Powers Hotel, European Plan, $1.50 to $3.50 per day.
Whitcomb House, European Plan, $1.00 to $2.50 per day.
Hotel Rochester, European Plan, $1.50 to $3.00 per day.
Hotel Eggleston (men only), European Plan, $1.00 to $2.00 per day.
New Osburn House, American Plan, $2.50 to $3.50 per day.

Excursion parties are leaving from the following cities, and if you desire to join them you can address as follows:

Empire Photo. Supply Co., Columbus, Ohio; Robey-French Co., Boston, Mass.; C. F. Becker, 235 West 23d Street, New York City; John Haworth Company, Philadelphia, Pa.; Sweet, Wallach & Co., Chicago, Ill.; W. Schiller & Co., St. Louis, Mo.; St. Louis-Hyatt Photo. Supply Co., St. Louis, Mo.; Zimmerman Bros., St. Paul, Minn.; O. H. Peck Company, Minneapolis, Minn.

In purchasing your ticket, when leaving for Rochester, don't fail to ask for certificate which entitles you to the reduced railroad fare returning.

Saturday night we break camp and leave for our homes with new inspiration, new friends, and new ideas, resolute and determined to make the 1910 convention eclipse that of 1909.

F. R. BARROWS,
President P. A. of A.

## PHOTOGRAPHERS' ASSOCIATION OF NEW ENGLAND.

THE Twelfth Annual Convention of the Photographers' Association of New England will be held August 3, 4, and 5, in Mechanics' Building, Boston, Mass.

Always a matter of interest to the profession at large, the 1909 Convention will be an event of utmost importance to the New England fraternity.

The "big" men of New England need no introduction; the ability and generosity which has placed their services in demand wherever photographic conventions are held will be the backbone of the coming affair; consultation of the executive board with these leaders in the craft has brought forth suggestions sufficient not only for this year, but for several years to come.

Loyalty and patriotism to our members and our field have led to an effort for a convention distinctively New England—New England ability and enthusiasm to assist and educate the New England fraternity. Beginning at the basis of all good photography, this year we shall "feature" the "negative school" in charge of Mr. Garo; members are to bring finished portraits with the negatives from which they were printed, and will thereby receive *individual, personal* criticism and instruction from the best talent at our command.

Supplementary to the school, whatever information may be desired, unsparing effort will be made to place the man who wishes to know in touch with the man who knows, if such is in attendance—and we feel sure he will be.

In the interest of democracy and true progress, we shall arrange for a complete expression of individual opinion regarding the merit of each feature of the program and furnish opportunity to make suggestions for the future, all without the annoyance of "getting up in meeting" or the possibility of unpleasant argument.

As every wideawake or half-awake professional knows, the long-deferred but vital step will undoubtedly be taken at Rochester, a proposition demanding parallel action on the part of local associations, and, to maintain her position in the vanguard, what New England does must be done this year. We realize that all who are alive to the situation need no inducements to insure their attendance—they couldn't be kept away with a club—but to demonstrate that the P. A. of N. E. can give a feast for the price of a "hand-out," here is the menu:

Grand portrait class, open to the world. Solid gold medal.

Portrait class, P. A. of N. E. members only. Three prizes.

Genre class. P. A. of N. E. members only. Three prizes.

Group class, P. A. of N. E. members only. Two prizes.

Landscape class, P. A. of N. E. members only.

Two prizes.

The above list of awards will doubtless prove an incentive for keenest competition and bring a display worthy of most careful study; in addition we shall arrange to secure the cream of this year's exhibition work.

All three days we shall have with us Mr. Alon Bement, art instructor at Columbia University, well known as lecturer and master of pictorial criticism; also Mr. W. S. (Daddy) Lively, President of the Southern School of Photography, the "all-star" attraction at many recent conventions and too well known to need comment; a full representation of manufacturers, dealers, and demonstrators, and, just for fun, a repetition of the gay, informal dancing party, and the

hilarious excursion to Nantasket. Inquiries addressed to the Secretary, Mr. George H. Hastings, Haverhill, Mass., will receive a prompt reply. Full detailed information will be placed in the hands of every professional photographer within the field of the Association, giving each an opportunity to support and advance the interests of the Association and the welfare of professional photography.

W. F. OLIVER,
First Vice-President.

JUNE 9, 1909.

## COMPOSITION AND CHIAROSCURO.

### *Composition.*

FROM earliest times man seemed to have taken pleasure in imitating what he saw in nature. Indeed, having no alphabet, he had to express himself by means of hieroglyphics such as we see in Egyptian monuments, where, as we can understand, composition did not enter into consideration.

The cave dweller spent his spare time in amusing himself by scratching on the walls of his dwelling, or on bone or ivory, representations of animals of the chase which he had brought down with his flint arrowhead, many of these animals, such as the Irish elk, being now extinct; and these reproductions give us an idea of life at this remote period, and, associated with the animals, of the climatic conditions of this country at that time. But, like the Egyptian, imitation was the only aim, composition not being throught of or known.

Coming down the centuries, the Greeks, with their formal and classic architecture, necessitated an adherence to the first principles of composition, *i. e.*, pyramidal. The line of beauty called Hogarth's was known to the Greeks long before his time, just as nature knew of it long before the Greeks, as shown in the daffodil, narcissus, icanthus (honeysuckle), etc. These lines are useful in showing us how to pose a figure or compose a group.

The formal nature of Greek architecture alluded to can be seen in their well-known ornamentation, which we call the Greek pattern; but by taking off the corners they got a succession of curved lines of beauty, which I have already alluded to as Hogarth's. The vine is made use of in the capital of the Corinthian pillar, where every line is one of beauty.

As, however, the height of art is to conceal art, *ars celare artem*, and as the painter or sculptor is not limited to the formalities of the architect, he conceals his composition by putting the highest point off the centre. In landscape the painter tries for a composition in this fashion, showing the line of beauty, and the balance put to one side and brought back by trees or cloud.

I need not dwell further on the rudiments of composition. The photographer has great difficulties to overcome in that he has to try in a short space of time to pose single figures, and compose the group where the sitters have no idea of the one or the other. Burnet, whose work on Composition and Chiaroscuro is the standard one, says: "Groups of figures, without some appearance of geometrical form apparent to the eye, would produce a confused effect upon the spectator, in whose mind their appearance would indicate one subject as strongly as another, and look picturesque, when such character might be destructive of the impression intended to be produced;" or, as Johnson ex-

presses it, "*Sublimity* is produced by aggregation, and *littleness* by dispersion."

In following up the examination of composition into its component parts, we find it necessary that they should all combine to produce one result upon the spectator; or by extending the lines productive of such sensations, or lines, by a union of several parts leading the eye by their direction to the principal part of the story; or giving bulk and strength to the foreground figures.

A knowledge of arrangement enables us yet further to heighten the gratification of the spectator by engrafting upon the work those forms found in the compositions of the most celebrated artists alike in figure and landscape.

### *Chiaroscuro.*

That harmony which is produced by chiaroscuro, or by means of black and white independent of color, depends upon the quantities of light and dark employed, and the disposition of them. The power of producing a variety of pleasing sensations upon the eye mainly rests on the conduct of the chiaroscuro; objects are rendered either strong or delicate, according as they advance or retire on the perspective plane of the picture; parts are forced upon the spectator's attention by their clear defined character, and assisted from contrast by groups of indistinct images imbued with the properties of middle tint.

The photographer has difficulties to contend with, as we shall see later, not only in the limits of the camera and his studio, but in the utter want in the sitter as to any idea of action or grace. Each one wants to be prominent and properly in focus. Actors know the advantage of having the centre of the stage, and demand it in turn, the others resolving in supposed and subdued conversation while the particular one for the time is understood to "occupy the stage."

As to light and shade, the general public are again in ignorance of the rudiments of this attractive form in nature. The portrait painter meets with a lady who will ask, "What is that white spot on my eye?" Peter Bell, of whom it is said,

> "A primrose by the river's brim
> A yellow primrose was to him.
> And it was nothing more,"

had no idea of color. The present-day Japanese or Chinese have no idea of the charm of aërial perspective. They are no farther advanced today than the Pompeiians of nearly twenty centuries ago, as seen by mural decorations. The majority of people go through life blind to the beauties of tone, chiaroscuro, and composition. Breadth of effect is only to be produced by a great extent of light or shade pervading the picture. If an open daylight appearance is intended, such as we see in Cuyp, etc., it will be best produced by leaving part of the middle tint, and allowing a greater spread of light and half light. If a breadth of shadow is required, such as we find in Rembrandt, etc., the picture ought to be made up of middle tint and half dark. "Rembrandt," says Burnet, "has carried this property of shadow beyond the hope of any improvement, and by this means has clothed the most trifling subject with a portion of sublimity."

If light, collected into a focus by means of a lens, be thrown upon a wall obliquely, it will explain to us one of its principal properties upon which many artists have founded their principles of light and shade.

If those two extremes of light and shade be brought into contact, we make them assist each other, one becoming brighter, the other darker, from

the effect of contrast. If, for example, we take a head by Rembrandt, we find the principle of light or focus in the upper part of the face, which he often, to render more luminous, surrounds with a black bonnet or hat, and even this he keeps of a cold tone to give more value to the flesh. In pictures by Franz Hals we can see the abundant use he made of black to show up the face and hands. Here again the photographer meets with difficulties when, as in the song of black-eyed Susan, the sitter comes "dressed all in my best"—which is commonly the worst for an artistic result—the photographer can only try his best with uninteresting material. As I have suggested, the photographer has many difficulties to contend with in sitters who know nothing of grace, and who, when they enter the studio, are filled with a fear only equalled by entering a dentist's room, with the result that a stiff and unnatural action is adopted.

To return briefly to light and shade, Reynolds says that there should be at least three lights; the secondary lights ought, for the sake of harmony and union, to be of *nearly* equal brightness, though not of equal magnitude, with the principal. A study of works by the Dutch masters cannot fail in having a beneficial effect on the student in the way they excelled in the management of light and shade. Rubens appears to have admitted rather more light than a quarter, and Rembrandt much less —scarce an eighth. By this method Rembrandt's light is extremely brilliant, the rest of the picture being sacrificed to this one object.

Generally speaking, a gray and subdued background is the best for a figure composition, as, by arranging a group against such a background, the artist may arrange the group so as to throw a deep shadow, with one or more of the principal figures giving the high lights, and thus producing the three necessary tones of light, middle tint, and dark.

## BUILT-UP GROUP PHOTOGRAPHS.

THE following article is suggested by a query which a correspondent sends up this week, instead of replying to which in the usual column, we may deal with it here, inasmuch as what will be said may be of service to other readers as well as to our inquirer. The latter wishes to produce a group containing the principal members of an important club in his district similar to one he has seen of leading members of the Royal College of Surgeons with the hall of the college as a background. We happen to remember this particular picture very well, as we do several others of a similar type, though we cannot say much in their favor so far as their artistic merits are concerned. They are sometimes termed "patchwork" pictures, and that is by no means an inappropriate name for them. Some of them contain most glaring incongruities. In some one sees a figure lighted from one side, while the one next is illumined from exactly the opposite direction. The figures, in many cases, are looking in all manner of different directions, and the poses of some are little short of ludicrous in reference to the *tout ensemble* of the picture. In most instances these incongruities are due to the fact that the portraits had to be obtained from quite different sources and were not specially taken for the work.

Incongruities in this class of picture are not entirely confined to photography, for we have in mind as we write two or three paintings from which expensive

engravings have been produced in which they prevail. One in particular is the well-known picture of the "Waterloo Banquet," in which the late Duke of Wellington is depicted as addressing the guests, not one of whom are looking in the direction of their host, while the larger proportion have their backs to him. Another is one of a cricket match, in which the persons in the foreground, representing the leading cricketers of the period, all have their backs toward the players, and are seen not to be taking the slightest interest in the game. The main interest in pictures of this type is the portraits and nothing more. Our readers are quite familiar with similar productions of more modern date than those referred to, and they are not less incongruous. However, without saying more from the art side of these pictures, we shall now give a few hints as to how they are produced.

We will now consider the type of the photograph mentioned by our correspondent, and what will be said will apply to such works generally. In the first place, a suitable background is required, usually some scene which the persons depicted are intimately associated with. A sketch of good size is made, or a photograph of it is taken and enlarged, say to thirty inches or larger, for it is well to have it on as large a scale as convenient. In making this enlargement, or sketch, some attention must be paid to the size of the portraits to be stuck upon it, so as to get as fairly good perspective as possible in the circumstances. In making the background from a natural scene or building, it is well to take the photograph in a very subdued light, so that there are no pronounced shadows from any particular direction, as then it will the better blend with portraits which may be lighted from different directions. The enlargement should be somewhat dark, and if it is a little fogged so much the better, as the details should not be strongly pronounced, or they will detract from the portraits. It is then mounted on stout cardboard. If the portraits are taken expressly with a view to the production of the picture, they can, of course, be all lighted one way, and then the work is comparatively plain sailing. However, we shall assume that, as is usually the case, prints from different sources have to be utilized. If they can be obtained unmounted so much the better; if not, they must be soaked off their mounts.

The next step is the arrangement of the figures in their best positions. In this no definite instructions can be given, as all must depend upon the nature of the picture and the number of persons to be included. In any case, the most important personages should be given the most conspicuous positions, such as in the foreground or centre of the picture. It is a good plan to arrange the portraits roughly on the background picture and see the effect. In arranging them, attention should be paid to their size. If they have been obtained from various sources some may happen to be larger or smaller than others. In this event the larger ones should be placed nearest to the foreground and the smaller behind them, as their faults in perspective will be less conspicuous. In all cases a good amount of foreground should be left in front of the figures.

When the arrangement has been decided upon, the portraits should be numbered on the back and similar numbers put on the places they are to occupy in the finished group. The next thing is to re-arrange the figures neatly in their final places and secure them, temporarily, there with a touch or two of india rubber solution in the centres, leaving the edges loose and free. Then, when all are fixed, the overlapping portions of the portrait pictures are cut clean through down to the mount with a sharp pen-

knife, and the pieces set free removed. In doing this part of the work, judgment must be used as to where the cuts are made. If it can be avoided, they should not be close round the head, but a little of the background of each included. When all the portraits are trimmed, they are taken off and the adherent rubber removed, and that is easily done by lightly rolling it off with the finger. The prints are then ready for final mounting on the background, and if the trimming has been neatly done they will fit together like the parts of a child's dissecting puzzle, and the numbers on the back will be a guide as to their relative positions.

As a mountant, one should be employed with as little water in it as possible, so as to avoid any undue expansion of the paper. Very thick starch paste is suitable if it is applied thinly, and the print is quickly got in its place and at once well rubbed down. When the whole of the prints have been mounted, should any fine lines be seen at the junctions they must be touched out with water color. The picture is then rolled or hot-pressed, when all will be flat and even. The picture is then ready for copying to the size or sizes desired.

It will probably be found, when the portraits have been obtained from different sources, that in the reproduced negative they are not all of equal printing density, arising from their not all being of the same tone or depth in printing. In that case the thinner ones must be backed up with one or more thicknesses of thin mineral paper, so that they equalize with the others; or matt varnish, tinted or not as occasion may require, may be applied to the back of the plate and then scraped away round the edges of that particular figure.

As we have already said, pictures of this kind can never be looked upon as being in any way artistic productions. Yet they sometimes prove tolerably remunerative to the producer, and that is the object he may be assumed to have in view when spending the time generally required for these productions.—*British Journal of Photography.*

## PHOTOGRAPHERS' ASSOCIATION OF ILLINOIS.

THE eleventh annual convention of the Photographers' Association of Illinois was held at Springfield, Illinois, May 4, 5, 6, and 7, and was in every way a great success. Under the presidency of Mr. H. B. Medlar the meetings were carried along in a business-like and fraternal spirit. These were numerous entries in all classes of exhibits, and the work shown was of a good average.

Falling in line with other State Associations, Illinois named three delegates to attend the coming National Convention and take part in the State Associations' conference.

Instructive and helpful features of the convention were the Cramer and Hammer plate demonstration and the Eastman School of Professional Photography, which was well attended and much appreciated.

The following officers were elected for the ensuing year: President, R. H. Mann, Virginia, Ill.; First Vice-President, H. W. Harper, Joliet, Ill.. Second Vice-President, J. Edgar Turner, Pana, Ill.; Treasurer, D. D. Tennyson, Litchfield, Ill.; Secretary, Victor Georg, Springfield, Ill. Springfield was again selected for next year's meeting.

The prizes were awarded as follows:

*Grand Portrait Class* (open). Silver loving cup, W. S. Lively, McMinnville, Tenn.

*Class A.* Gold medal, C. L. Venard, Lincoln. Silver medal, M. R. Moran, Canton, Ill.

*Class B.* Gold medal, C. L. Venard. Silver medal, D. D. Tennyson, Litchfield.

*Class C.* Gold medal, F. E. Ostrom, Petersburg. Silver medal, N. S. Godfrey, Abingdon.

*Cabinet Class.* Gold medal, Victor Georg, Springfield. Silver medal, J. Jaenel, Chicago. Gold medal, Fein & Schnabel, South Chicago. A tie occurred in the Cabinet Class for first place, and two gold medals were awarded.

*Special Class, No.* 1. Babies, one award only. Gold medal, J. E. Warmsley, Danville.

*Miniature Class.* Gold medal, R. A. Heath, Pontiac. Silver medal, Fein & Schnabel, South Chicago.

*Special Class, No.* 3. One award only. Fifteen dollars. W. Whitesell, Charleston.

*Special Class, No.* 4. Calendars. One award only. Gold watch, R. A. Heath, Pontiac.

*Special Class, No.* 5. Home Portraiture. Award to be decided. Geo. C. Blakslee, Rock Island.

*Imperial Cup Class.* Silver loving cup, won by the Walinger Studio three times consecutively, becoming their property.

*McIntire Special Class.* A McIntire Printing Machine, won by Victor Georg, Springfield.

A useful feature of this convention was the "Question Box." Members were invited to ask questions on knotty problems, and were answered by other members who had solved them, or by the demonstrators present, the latter including Messrs. Fell, Hazlett, and Waide.

The final session was brought to a close with the demonstration and explanation of the most practical idea. Special class, No. 3, the prize was awarded to Mr. Wood Whitesell, of Charleston, for a handy and practical vignetting attachment for printing frames. Many other good ideas were demonstrated in this class.

The following manufacturers were represented: Eastman Kodak Co., Artura Photo. Paper Co., Kilborn Photo. Paper Co., Cramer Dry Plate Co., Haloid Paper Co., The McIntire Printing Machine Co., Lapell, Loomis & Co., and Hammer Dry Plate Co.

## EMPLOYMENT BUREAU P. P. S. OF NEW YORK.

THE Free Employment Bureau is having considerable trouble regarding correspondence from both employers and employees, and a few words on the subject may prove of interest, and help to make it a better success. The greatest difficulty is encountered in the following manner:

An employer seeks a man; he asks the assistance of the Bureau; he receives a list of the applicants for positions; he engages someone, either through the Bureau or not, as the case may be; but he fails to notify the Bureau that the position is filled. Consequently, the manager thereof is in doubt regarding the situation, and additional correspondence is necessary to obtain the desired information. Or the position is not filled; the employer is still looking for some one; but he fails to notify the Bureau, and the manager is again in doubt, though he may have additional applicants for positions.

This also applies to applicants for positions, many of whom secure situa-

tions through the efforts of the Bureau, but fail to notify the manager, who continues to send their names to those looking for help. Surely employees should be thoughtful enough to keep the manager of the Bureau fully informed, as they may desire his services again.

The Bureau is free to all applicants for positions in any part of the country, and to all members of the P. P. S. of New York and Pennsylvania. Employers not members of the above associations are entitled to the list of applicants for positions on payment of one dollar, which goes toward defraying the expenses of the Bureau, postage, printing, stationery, etc.

The manager of the Bureau does not receive compensation of any kind, therefore it does seem that both employers and employees should assist the Bureau by keeping it informed, especially as they receive the entire benefit of the work.

Those using the Bureau should observe the following rules, which apply to both employer and employee:

Write plainly, always giving full details in the first letter. Write once a month until your wants are supplied, and when you secure what you want notify the manager at once, to save further correspondence, which entails both time and expense. Be sure to write your address plainly, as many fail to give town and State. Always enclose return postage when a reply is expected.

FREDERICK POHLE,
Manager.
9 West Chippewa St., Buffalo, N. Y.

## E. O. HOPPÉ.

[THE following interesting account of Mr. E. O. Hoppé—one of the leading London exponents of the new school of professional portrait photographers—from the pen of Mr. Chas. E. Dawson, is reprinted from our enterprising contemporary *American Photography*, and will repay a careful reading. The note on hands, in the seventh paragraph, is worth a second reading.—ED. W. P. M.]

The chaos which characterizes our current photographic ideals has been contributed to in no small degree by E. O. Hoppé. The most recent recruit to the ranks of the professional portrait photographers, he has brought with him a direct challenge to the old school who exploited a few stock poses—the rustic gate, pillar, vase, and inevitable headrest—for the production of the common or garden photograph.

Like his neighbor, Elwin Neame, the exponent of the show girl *par excellence*, Hoppé has youth on his side, and incidentally temperament and energy enough for a score of ordinary picture makers. He has achieved appropriately distinguished portraits of most of the leading artists, *littérateurs*, and actresses in London, from Walter Crane to Maud Allan.

He has exhibited at almost every important show in Europe, and because he is of German descent, and also because Germany just now clamors for "Englische Kunst" in any form, he finds perhaps his most appreciative public in the Fatherland.

This year he has been appointed Honorary Commissioner-General for Great Britain for the International Photographic Exhibition at Dresden, and the South German Photographic Union has arranged for a one-man show of his work in Munich, to be followed by similar exhibitions in Hamburg and Berlin.

At present he is fulfilling a two-months' contract with a well-known publishing house, making a series of portraits for a portfolio, *Men and Women of Mark in the Twentieth Century.*

Both of Hoppé's grandfathers were artists; one a portrait painter of distinction, and the other an equally eminent worker in black-and-white.

His pet formulæ are on the importance of omitting things, the selection of the essentials, the distribution of light and shade, and the value of hands in portraiture. Without disputing the claims of the palmist as to the secrets of character and destiny which his science may reveal, every artist—and, indeed, every picture lover and every student of human nature—instinctively recognizes the significance of the hands as an index to those subtler shades of temperament, and even to the mood of the sitter, which the face alone does not fully convey. Indeed, the hands, so little suspected by their owners of these telltale powers, may often reveal innate tendencies and latent abilities of which the well-controlled features give little or no indication; while beauty in the face is emphasized and heightened by the individual charm of the hands.

Hoppé limits his retouching to an irreducible minimum almost, and for its avoidance gives special study to lighting, and uses a slight, very slight, diffusion of focus.

He was at one time tempted to work this diffusion trick almost to the point of bringing him into the category of the "fuzzy-wuzzy" school, but lately, however, he has come to realize the risks of losing the feeling of structure and the quality of texture by this means.

Simplicity of composition, isolation of the essentials, decorative arrangement of masses and lines, strong placing of the chief object (usually the head) and harmonious distribution of light and shade are the guiding rules that Hoppé seeks to follow in all his work.

He has made daring excursions into the realms of symbolism, and with frequent success. Some appropriate motive hovering in the background of a portrait has often suggested the work or environment of the sitter.

His art studies in the life school in Munich are, I imagine, responsible for his strong regard for modelling—for realizing things "in the round." He looks at his sitter very much from the point of view of a sculptor—a sculptor with a peculiar perception of character. A certain individual quality is noticeable in some of his portraits of men, where the roundness and relief of the head make it stand out from the background, even when that background is ungradated and almost black. Many a portrait that has a fair amount of roundness in its treatment still looks as if the figure were stuck against the background, but Hoppé's start forth vividly, ready to come from the frame, instinct with life and animation. This is not so apparent when the pictures are held at reading distance, but stand them against the wall, retire three, four, or five feet, and the effect is at once made manifest. So far, Hoppé has restricted himself almost entirely to portraiture, but the conviction among certain of his critics is that as soon as the momentum of the influence of the art school life class in which he studied has spent itself, he will bend his energies in the direction of landscape and other fields of work.

Hoppé, although earning his bread by his camera, is not prepared to exploit that instrument—or rather his printing frame—to its full limit.

His method is to produce one print for each sitter; and that print he aims to make as true, as sympathetic, as indicative of character as artistic skill and technical ability can make it. In his

view it should be treated as a painted picture would be, as the artistic presentment of the person. Should it be desired to duplicate the picture, Hoppé would make copies of the original and sell them at a nominal sum.

Fortunately, Hoppé's clientele is chiefly among artists and literary men, and they naturally welcome and appreciate his departure from the machine-made methods of the professional worker. Like so many good innovations, the recent revival of the "one-man" professional photography had its first beginnings in the United States. When, some few years ago, the phase reached London, it was feared by some that it was a mode of appeal, a method invented for the purpose of offering the same thing as something different. However, the "one-man" photographer, who does everything, from the exposure to the finished and mounted print, with his own hands, came to stay, and among the followers of the method are some of the most forceful and original workers in Great Britain—E. O. Hoppé among them.

He has nothing revolutionary or novel in his precedure, nothing which has not been thrashed out time after time in the photographic societies and press. He has no parlor tricks or unique apparatus, and it would be misleading to claim anything for him beyond an all-absorbing interest in his work.

He is the most modest and most recent recruit to the ranks of the professional portraitists. It is a happy augury that those workers who are, like him, wedding their theories of art to their practice of photography, are finding that there is a growing public ready to buy and pay for their products.

There are no outside show cases at the entrance to Hoppé's house, nothing to distinguish it from the other surrounding studios, save the small brass name plate scarcely bigger than a postal card. And his workroom is more like the den of a cultured undergrad than a professional's establishment.

Formerly the studio of Alfred Garrett, R.A., the atmosphere of the artist pervades the place, for Hoppé is no inconsiderable juggler with brush and palette knife, and his charcoal drawings still bear the academic impress of his art school days in Munich.

Old von Lenbach, perhaps Germany's greatest portrait painter, was his professor, and Hoppé had a hot time once trying to explain to the splendid old giant the all provocative assertion that photography was an art! But the young student set himself to justify that claim with all the ardor, the patience, and the devotion of the true artist, and in England and America at least it is beginning to be felt that the days of the photographer without a genuine art training behind him are already numbered.

Studying Hoppé's output for the last three years, and following his evolution from his most immature and tentative efforts, I am convinced that he is one of the newest and most interesting personalities in the profession, and his development will form one of the most instructive studies for the student of photographic personalia and psychology during the next decade. To have done so much, to have gone so far in so short a time, is certainly a token that he will before long have a full measure of his ambitions and the predictions of the critics realized.

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*Stock Toning Bath.* A sulphocyanide toning bath, which is said to keep well in the dark, is made of the following:

| | |
|---|---|
| Distilled water . . . . . | 2 ounces |
| Gold chloride . . . . . | 15 grains |
| Strontium chloride . . . . | 150 grains |

## REDUCTION WITH CERIUM PEROXIDE.

It is a source of surprise to me that we do not hear more of the cerium reducer, writes J. K. Marsh, in *Photography and Focus*, as no one can have much experience with it without recognizing that for general use in the dark room it is easily first. Ferricyanide and hypo seems to be the favorite, yet in every respect but one cerium peroxide is its superior. The one advantage that the other has is that both its constituents have other uses, and so are already on the shelves of the amateur. Having made so big a claim on behalf of the cerium reducer, the reader will expect an attempt to substantiate it, and this I will proceed to make.

First, let me describe the form in which it is obtainable. The reducing action of this substance was discovered by Messrs. Lumière, whose patented preparation is the reducer which is on the market. It is in the form of a single concentrated solution, which keeps quite indefinitely; and the diluted reducer may be used over and over again until it no longer has any action. The rate of reduction is controlled by the degree of dilution; the color of the negative or print is not altered by reduction; and there is not usually any staining action.

The most useful application of this reducer is in cases of overexposure. When a negative is overexposed, the best treatment it can receive is for development to be carried right out for as long a time as if it were correctly exposed. This will be found to give a very opaque plate; it may be quite dark on the glass side before fixing, if the overexposure has been very great. Although very opaque, the contrasts in such a plate are very weak. Reduction with cerium actually increases them, although it makes the plate less dense. After the usual fixing and washing it is then reduced with the cerium solution until comparatively thin. It is not often that this will give a negative with sufficient contrast to print just as it is, though it will do so in some cases. But by intensifying with mercuric iodide sufficient vigor can be obtained, even when the negative at first sight seemed to be quite hopeless.

For the purpose of reducing such negatives I find that the most convenient dilution of the stock solution is formed by taking one dram of solution to each ounce of water. Messrs. Lumière give as the maximum strength equal parts of the stock solution and of water, and point out that the negative should be placed dry in this very energetic reducer; but at this concentration it will be found usually to have so powerful an action as to be almost uncontrollable, and I prefer, therefore, to use it much weaker.

The action on an overexposed negative seems to be approximately uniform, and so by the time the shadows are very nearly clear glass, there is still a great deal of deposit in the high lights. Actually it must remove even more deposit from the shadows than it does from the high lights, as, if prints are made from a negative before and after reduction, not only does the negative give a print much more quickly after reduction, but the print is actually brighter. That is to say, it has distinctly more contrast. The more overexposed the negative—that is to say, the more the reduction is necessary—the more noticeable is this effect.

Perhaps I may be allowed to quote what Mr. H. W. Bennett says in his book, *Intensification and Reduction*, on this topic: "Although with cerium peroxide there is much greater action in the shadows than in the denser portions of the image, the difference is not

so great as with potassium ferricyanide, if only a moderate degree of reduction is produced. If the action is prolonged, however, the reduction in the shadows is relatively greater than with potassium ferricyanide. But these differences are not great, and may be ignored. Cerium peroxide may be substituted for potassium ferricyanide with great advantage on account of its clean working and the unimpaired technical quality of the negatives reduced by its aid."

Although under ordinary conditions there is no staining whatever with the cerium reducer, it will now and then be found to give a slight yellow stain. The cause of this I have not been able to discover. Mr. Bennett in his book seems to suggest that it is due to the make of plates, but I myself only use two makes, very rarely get the stain at all, but have certainly had it once or twice with both brands. There seems to be no difference between the two makes in this respect. A few drops of hydrochloric acid in three or four ounces of water removes the stain almost directly, and there is no danger of its return subsequently, when the plate is washed.

It may be as well to add here that I have found the cerium reducer very useful for other purposes besides the reduction of overexposed plates. Every user of gaslight paper at one time or another must have been troubled with discoloration of the whites of the print by the developer. It is particularly troublesome when a mask has been employed to give the print a clean white margin. A momentary treatment with the cerium reducer will clean these up and brighten the print generally, and at the same time will in no way affect its color injuriously. For this purpose the solution should be much weaker than in the formula I have already given; one dram of the concentrated solution to three ounces of water will be quite strong enough.

This dilute form of the reducer is very suitable also for the clearing of lantern slides, and for brightening up a negative which from being on a stale plate, or for a similar reason, has got its surface marked with that metallic iridescence which is sometimes met with. One must be careful not to overdo the reduction in such cases, as there is always a danger in applying a reducer of this kind to a negative full of delicate gradations—a caution which applies as strongly to the use of ferricyanide and hypo as it does to the cerium reducer.

There is very little more to add. It may be pointed out that the negative or print must have the hypo thoroughly washed out of it before the cerium reducer is applied; but if this has been done the reducer may be applied to the film while the latter is in a dry state, or after it has been soaked. The action is quicker when the plate is put in dry, and this is certainly the better plan when it is an overexposed plate that is being extensively reduced. Under other circumstances, and in the case of prints invariably, I prefer to have the film wet before putting it in the reducing bath.

After reduction with cerium, plate or print must be thoroughly washed. In Messrs. Lumière's instructions they say "wash thoroughly for an hour," but this is no doubt a maximum intended to insure that the washing shall be sufficient. A negative that I have reduced I support just below the nozzle of my dark room tap, and leave a gentle stream of water running over it for ten minutes. At the end of that time it is ready to be put up to dry, or to be intensified if it need it; and no ill-effects to suggest insufficient washing have ever followed.

I do not think that the photographer who has once used this very convenient reducer will ever care afterward to be without it on his shelves.

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By F. J. Denton, Wanganui, New Zealand

By J. E. Mock, Rochester, N. Y.

By Meredith Janvier, Baltimore, Md.

By R. Dührkoop, Hamburg

1. By Hanni Schwarz
2. Anon.
3. By M. u. T. Bernoulli
4. Anon.

*Illustrating Sidney Allan's Article*

5. By P. von Scholler
6. By Th. Hilsdorf
7. By Wolffram & Co.
8. By Helena Goude

*Illustrating Sidney Allan's Article*

9. By R. Dührkoop
10. By Carl Trieb
11. By A. Gottheil
12. By R. Dührkoop

*Illustrating Sidney Allan's Article*

13. By Heinrich Kühn

14. By Karl Pietzner

*Illustrating Sidney Allan's Article*

# ON THE COMPOSITION OF TWO-FIGURE PORTRAITS.

BY SIDNEY ALLAN.

In this discussion I shall treat the various phases of two-figure composition, with the exception of the mother and child protrait, to which I have devoted a previous article.

There are, in my opinion, great chances for two-figure portraiture. It is a field that has been comparatively neglected. The German professionals make much more use of it than we do. I believe some enterprising studio could profit, not by making exactly a specialty of it, but by introducing two-figure portraiture whenever there is an opportunity (or rather, by forcing the opportunity), and by informing the public that it is ready to do that sort of thing.

Children always look well in pairs. But also grown-up folks lend themselves readily to that treatment. Brothers and sisters offer delightful opportunities (Figs. 5 and 10), and so do girl friends (Fig. 12), a mother and her grown-up daughter (Fig. 8), father and son, and elderly couples (Fig. 9). Lovers and bridegroom and bride will always look a trifle sentimental, but there is every reason to believe that they will be the most popular. They will never make the most artistic pictures.

The success of two-figure composition depends largely on the way the ovals of the faces are placed and the viewpoint from which the faces are seen. There is one rule that must be strictly obeyed: the heads should never be on exactly the same level. One should always be higher than the other, even if there is only an inch difference, as in Fig. 6. Slight differentiation is better than too much (as in Fig. 4). The heads perhaps look best if they are close together, as in most of the accompanying illustrations. Heads separated but still near to each other (Fig. 8) are more difficult to handle. The intervening space needs special attention. If the heads are far apart, as in Fig. 10, it becomes a matter of space composition. The two spots must balance each other perfectly, and there must be a connecting line or interest between them, or the portrait will give the impression of two disconnected figures.

The positions of the heads in a two-figure portrait allow of six different combinations: (1) When both heads are seen full face; (2) when both are in profile; (3) when both are three-quarter views; (4) when one is profile and the other three-quarter; (5) when one is a full-face view and the other three-quarter; and finally, (6) when one is profile and the other seen full face.

Two heads seen full face we have in Fig. 14. It is cleverly managed by tipping the little boy's head over to one side. It is the only way to get a graceful composition of this combination. Two full-face views without any inclination of one of the heads will always look awkward.

Two profiles we will find in Figs. 1, 9, and 13. Fig. 9 represents the most popular method, one head a little lower behind the other, both gazing straight ahead, as in medals. It looks well enough for these two old folks, but for most purposes will be found somewhat stiff and too severe. It is rather a decorative than a natural effect. Really very little can be done with two profiles. Fig. 1, by a lady home portraitist of Berlin, Germany, is exceedingly well manipulated. The peculiar position of the heads breaks the parallelism of lines.

In the usual way of representation (Fig. 9) there is always the repetition of similar lines. Somehow one cannot get away from it. In Fig. 3 the problem has been solved, and this little picture should be carefully studied. It may suggest new ideas. Fig. 13, by Kühn, a German Secessionist, is one of those strange inventions that some photographers try to pass as portraits. It is a well-composed picture that will appeal to the painter, but most people like to be able to make out the faces, even if they should condescend to have themselves taken in profile. I do not believe that the two-figure portrait in profile will ever enjoy great popularity, except among old people who have celebrated at least their silver wedding.

Of the first three combinations, the third, of two three-quarter views, is by far the most pliable. In Fig. 6 we have a rather startling composition, startling in its simplicity and boldness of placing two heads together in almost exactly the same position. But you will notice the Λ-shaped inclination of the heads toward each other. That does the trick. Otherwise it would be intolerable. But even as it is, it does not look quite right. The hand holding the paper is not sufficient to balance the two line planes formed by the heads and collars. How much better is Fig. 8! There the two heads and the two hands holding the book form a circular composition, which helps any picture, but in particular one with two figures in it. There must be some reason why two figures are put together, and this should be vaguely suggested. In this instance it is the book balanced by the white tie of the younger woman. It helps to express the character of the two women. The old mother is in a contemplative mood befitting her age, while the daughter's face, watching the effect of what she points out in the book upon her mother, indicates the energy and animation of younger years. The slight inclination of the heads in the same direction also helps the general effect.

The combination of a profile and three-quarter view we can observe in Figs. 3, 7, and 11. It is probably the combination most frequently used, as it is the easiest one to handle. It is undoubtedly the most picturesque and natural one. It effects contrast by letting the distinct line of the profile play against the planes of the three-quarter view. In Fig. 3 it breaks up the oval of the three-quarter face, which is one of the most effective ways of applying it. But even if the profile does not overlap the other face, as in Figs. 7 and 10, much is gained by having the two heads of different shape. In all three portraits there is a point of interest—the sitters are occupied in looking at something. This, of course, is not absolutely necessary, but holds the figures together and makes the composition easier.

You will notice that the inclination of the heads toward each other is nearly always Λ-shaped in various directions and angles.

The combination of a full-face and three-quarter view is not so favorable. As it would be difficult to make the two faces look at each other—they generally would gaze out of the picture—it is only sentiment that could bring them together. This has been accomplished in Figs. 2 and 5. Both are brother and sister pictures, and depict affection. It is the best that can be obtained from this combination, and for that reason I believe this combination is principally suitable for children. Of course, other things can be done; but, as you must have realized by this time, my endeavor is always to bring out the most fundamental principle of every subject I discuss. Grown-up people ordinarily cannot be taken like the children in Figs. 2 and 5, and for other attitudes other views will be found more profitable.

What I have said about two three-quarter view combinations would also apply largely to this one.

Figs. 4, 10, and 12 represent the best combination of a profile and full face. It is very much like the fifth. As a rule, the faces have to be brought close to each other (Fig. 12), as the point of interest must be specially strong. In Fig. 4 it is the book; in Fig. 10 it is indirectly present in the backward glance of the girl to see whether her little baby brother is following her. The combination is particularly appropriate for figures in walking or standing positions (Fig. 12). The three-quarter view would show a too decided interest. You will also observe that in this combination the profile cannot overlap the full-face view.

Everyone of these combinations has its own individuality and usefulness. It is for you to find out the full possibilities of each. My few suggestions may help you in your experiments and possibly save you a few plates.

## PHOTOGRAPHIC CAMEOS.

BY RICHARD PENLAKE.

It is said of photographic journalists who practised their art about two generations ago, that when they wanted a subject to write about they invariably hashed up something about photographic ceramics, bas-reliefs, cameos, or some modifications thereof; whereas the last generation selected dust, in some form or other, as a stock subject, while the present generation select bromoil or some other bastard printing process. Photographic cameos, owing, no doubt, to the booming in the press, were immensely popular many years ago, but they died out, as did the real cameos, and little has been heard of them for many years. The genuine cameos having come recently into fashion again has been the means of drawing the attention again to the methods of making artificial patterns by means of photography, and it may be that a few of my recent experiences may be of interest to those who are fond of, and have time for, experimenting and a liking for novelties.

Before commencing to imitate, it may interest would-be imitators to know something about the original article. Cameo cutting is now a lost art, except, perhaps, in Italy, where a little of it is still done by the artistic Italians. I saw a cameo cutter at work in the little Italian village of Abbiat-Grasso, but his work would not have fetched ten guineas apiece, as they used to do. I have also seen Arab workers at Bethlehem cut imitation cameos out of the flat shells to be found round about the Dead Sea and other parts of Southern Palestine; but they were very crude, and I bought several for one shilling each. The earliest genuine cameos date from A.D. 160, and a few specimens are now in the British Museum, but I will not attempt to describe how they were made. The cameos of our grandfather's day were chiefly of two kinds—shell cameos and onyx cameos, the latter being the most expensive—about thirty guineas—because they took a month or six weeks to make, and were ground out with diamond dust. The shell pattern were much more simple and far easier to make, but I need not enter into the methods here. What really killed the art was the introduction of cheap and inferior substitutes cut out of glass, the

head and shoulders being, as a rule, of opal glass, which was affixed to a ground of dark-colored glass, usually dark green. This, however, is a digression, as my object is to tell how to make artificial cameos by photography, and in which the likeness is more or less perfect.

We first of all require a specially taken negative. Profile studies are the most suitable, and they should be taken against a black background. The hair should be powdered, unless, of course,

the sitter has white hair; this powdering and a strong light are necessary because we require a very bold and whitish image, which must stand out very distinctly in the negative. It is useless to proceed if the negative shows dark hair which merges into the background, and we should not get enough contrast when we come to the making of the mould and model therefrom. The negative must also be strongly developed, in order that the head and bust are clearly defined against the background, which should appear as clear glass on the negative, the head being taken, of course, the same size as required in the finished result, as there can be no enlargement or reduction during the operations.

We next require a specially sensitized glass plate on which to print our negative and to secure the necessary relief. There are two methods of making this: the simplest (No. 1) is quite good enough if our negative is strong and perfect enough in the first instance; if, however, the negative is not so strong as one would wish, the necessary relief may be obtained in an increased form by using method No. 2. Method No. 1 is to obtain a clean glass plate—I generally use a cleaned quarter plate or a lantern plate—wash it well and polish with powdered chalk and a soft duster. I may as well state here, in parenthesis, that the most wonderful glass cleaner for ordinary and old glass I have ever struck is the following mixture: Water, 1 oz.; ammonia, ½ oz.; powdered chalk, 1½ oz.; and powdered pumice stone, 1 oz. Apply with a piece of flannel and polish dry with a piece of chamois leather, soft rag, or crumpled tissue paper.

Having cleaned the glass, prepare the following mixture: Soak 60 grains of gelatine in 1 oz. of water till soft, and then melt by standing the vessel in hot water; when melted dissolve in it 10 grains of potassium bichromate and stir in four drops of strong liquid ammonia. Allow to stand for a few minutes in the hot water and skim off any bubbles or scum. Lay the polished plate on a perfectly level surface and give it a good thick coating with the gelatine mixture, and when set, place aside to dry, out of the way of any dust. The plate is not sensitive to light when wet; only when quite dry can it be printed upon.

The prepared plate, when dry, is placed in contact with the negative and put out in the sun to print. As the

progress of printing cannot be examined like a paper print, the process is more or less guesswork. As a rough guide, however, the time taken to produce a good result, is one and one-half times that which would be required for ordinary P.O.P. It is also possible to see a trace of the image at the back of the plate when one-half of the frame is unfastened, and printing may be judged to be complete when the details are just visible in a darkened tint through the glass. When the plate is sufficiently printed, take it out of the frame and soak in cold water, where, in a quarter of an hour, if all has gone well, the gelatine will swell in parts and we shall have an image in good relief.

Method No. 2, about to be described, is a little more complicated, and if properly worked gives a much stronger relief. The mixture for coating the cleaned glass plate is made as follows: Gelatine, ½ oz.; gum arabic, ¼ oz.; water to 2½ oz.; and add 12 drops of acetic acid. Melt and coat the glass in the manner previously described. When dry the coating is not sensitive to light, as is the case when the first method is used. It is, therefore, necessary to sensitize the gelatine coating in the following manner: Add 36 grains of ammonium bichromate to 2½ oz. of water and a few drops of strong ammonia, enough to make the mixture smell faintly. The dried gelatine plate is soaked in this mixture for ten minutes and dried in the dark, when it is ready for printing. Printing takes longer than by the first method, the time varying from twenty to thirty minutes in a bright light. When exposed, take the plate out of the frame and soak in the following mixture: Water, 5 oz.; glacial acetic acid, 48 drops; alum, 48 grains. The plate may remain in this solution for an hour or two or until the relief is strong enough. It is then allowed to drain.

At this stage, no matter which of the two processes has been used, we have practically the same thing, namely, a plate with a gelatine image in strong relief. If the relief is not strong it is useless going on with the process, and it must be started all over again.

The damp relief plate is then taken and carefully rubbed over with glycerine or warm vaseline. Four strips of card or narrow strips of wood are then placed round the plate so as to make a kind of tray, the glass plate with its raised gelatine image forming the bottom of the dish, relief side up, of course. Make a mixture of plaster of Paris and water to the consistency of cream and pour on to the vaselined relief plate to the depth of about half an inch. Be particularly careful of bubbles, and in order to be on the safe side it is advisable to slowly work through the coating of plaster to the relief with a camel's-hair brush in order to drive out any bubbles that may have formed between the gelatine and the coating of plaster. When the plaster has quite set it may easily be separated from the relief plate by inserting a knife edge between the two very carefully. Having got the plaster cast the making of the actual cameo now remains.

The material from which the cameo proper is cast can be colored to suit the taste. Some workers use colored wax, but I prefer a more permanent mixture made as follows: Take 2 parts by weight of glue and 1 part resin; melt together by heat and stir in some powdered French chalk and any mineral color desired, enough to make a thick paste; finally, add a few drops of olive oil. This mixture is pressed into the plaster mould, where it will set and form a stone-like substance. It is then separated from the mould and polished. This method gives cameos all of one color, but should the worker desire two colors the bust portion may be filled with one color, preferably of a whitish or cream tint, made by using chalk

without any coloring with the glue mixture, and then adding a dark green, red, or blue for the background. The two colors set together, and look well when framed up in a small oval brass—or gold (?) frames—the edges being cut or chipped roughly to the shape to fit. The making of the actual cameo with the mixture advocated is at times the most troublesome part of the process, and it is a good plan for beginners to use white, brown, and colored waxes when first making casts from the moulds. Medallions so made look very well when framed up with glass in front.

The negative, relief plate, and plaster mould may be used over and over again if the relief is sufficient; if not, they are useless, as the higher the relief the more satisfactory the result.

## THE BROMO-IODIDE OF COPPER INTENSIFIER.

THE objections to the usual mercury-ammonia intensifier are many. The density of the finished result is uncertain, spots and pinholes may appear in great numbers, while the permanence of the intensified negative is a matter of doubt.

A blackish colored deposit is rarely so non-actinic as one of a reddish color, and for this reason I prefer to have negatives of a reddish or yellowish tinge rather than pure black and white, such as that usually obtained with mercury and ammonia or by direct development with developers other than pyro. Pyro when used with soda or ammonia, more particularly the latter, gives negatives of a good printing color; they are not "pretty", like those obtained with, say, hydroquinone or any of the newer developers, but they give better results, particularly on P.O.P.

Once upon a time I used the uranium intensifier, which not only intensified the image, but stained it to a good reddish-brown color; but the uranium intensifier at its very best is unreliable, and is apt to increase the coarseness of the grain in the plate.

The bromo-iodide of copper intensifier is better in every way than the uranium, although perhaps a little more expensive and troublesome to make up. But it may be used for bromide papers and lantern slides as well as for negatives. With all it has a toning action just as uranium, and is far more reliable.

There appears to be a belief amongst amateurs that intensification of any kind is a sort of cure-all for under-exposure, but this is not so. The effect of intensification is to increase the contrasts, or the light and shade—the very qualities that are usually prominent in under-exposed plates. No after-treatment of the film of a developed negative can possibly replace the action of light, and produce details when the exposure given has been altogether inadequate. It is with over-exposures, where the detail is full and the contrasts are weak, that intensification is of the greatest value.

With the bromo-iodide of copper intensifier, as with most of the others, it is absolutely necessary that the developed negative should be very thoroughly fixed and washed. A thorough washing is of little use unless the negative is thoroughly fixed, preferably in a newly-made hypo bath. An intensifier by itself rarely causes stains, the latter being always traceable either to imperfect fixing or to improper washing, probably in most cases to both.

In order to "make assurance doubly sure," as Shakespeare says, I often take

the precaution to use two fixing baths, and after what is supposed to be a good washing I immerse the negative in a saturated solution of alum, and wash again in running water for twenty minutes.

The bromo-iodide of copper solution may be made up in any quantity, taking the following formula as a foundation:

When dissolved the following iodide solution is added slowly and with constant stirring:

| | |
|---|---|
| Potassium iodide . . . . | 8 grains |
| Potassium bromide . . . . | 20 " |
| Water . . . . . | 1 ounce. |

If it is properly mixed, a slight deep-yellow-colored precipitate will form. It is then filtered or allowed to settle, as only the clear portion is required for use. The solution keeps well, and may be used over and over again until it refuses to work properly. It is, however, advisable to strengthen it now and then by adding about 5 grains of potassium iodide and 15 grains of potassium bromide dissolved in 1 ounce of water. The negative, if dry, should be soaked to soften the film; it is then placed in the copper-iodide mixture, as above, the operation taking place in the strongest light possible. The negative bleaches rapidly, and it should be allowed to remain until the film becomes a canary yellow color all the way through, and even in character. When viewed by transmitted light, the shadows should appear clear, and the stronger the daylight when the negative is bleached the clearer the shadows appear to be. The average time of bleaching is ten minutes.

The yellow negative is then removed from the bleaching solution and washed in water for a quarter of an hour, but no longer. It is then ready for darkening. As with a mercury bleached plate, the darkening may be accomplished in many ways, the color of the darkened image depending on the state of the original image to some extent, but very much more upon the means employed for darkening.

A good darkener for blackish tones is a strong solution of sodium sulphite in which a few grains of silver nitrate have been dissolved, but the charm of the process is the various colored images which may be obtained by darkening the bleached image with old or new developers, redevelopment taking place in all cases, as did the bleaching, in the strongest light obtainable. All developers that I have tried, except eikonogen, I have found give good results. But, with one exception, the color of the image is a greyish black. The exception is hydroquinone, made up as follows:

| | |
|---|---|
| Water . . . . . | 4 ounces |
| Sodium sulphite . . . . . | ½ ounce |
| Sodium carbonate . . . . | 60 grains |
| Potassium bromide . . . . | 3 " |
| Hydroquinone . . . . . | 50 " |

The color of the redeveloped negative is, as stated above, strongly affected by the composition of the developer, and it varies a little, but not much with different plates. This formula gives a kind of claret-colored image as a rule, or a rose red, which is very non-actinic, and makes a good printing negative. By increasing the sodium sulphite and hydroquinone, darker shades of red and brown may be secured up to a good black.

A white porcelain dish should be used for the darkening process, or, if a black one is used, it is advisable to place a sheet of white paper under the negative, in order to reflect the light, because the stronger the light the better the result. The developer is allowed to act until the film is developed through and the image is of the required shade. It is then washed and dried in the usual way.

Negatives intensified in this manner keep better than those treated with

mercury or uranium, and apparently undergo no greater deterioration by the action of the atmosphere and time than those which have not been intensified.

Bromide prints are intensified like negatives. In bleaching the print, however, the paper will perhaps assume a bluish tint, from the formation of iodide of starch; but this will disappear when the hydroquinone developer is poured on. The picture then develops to a sepia color, the exact color varying somewhat according to the strength of the image before intensification, the composition of the developer, and, to some extent, also upon the strength of daylight in which the operations of bleaching and redevelopment are carried out.

When using the process, more particularly with negatives and lantern slides, it is important to bear in mind that the picture to be treated must be quite free from fog.

## THE CURSE OF LOW PRICES.

[THE following letter appeared in our contemporary, the *British Journal of Photography*, and refers, of course, to conditions as they exist in Great Britain, and they do not seem to be any better or worse than conditions on this side. We certainly cannot blame the writer for being disgusted.—ED. W. P. M.]

GENTLEMEN: Last spring the question was asked, "Is photography a profession or a trade?" Instead of a definite answer, the subject went into prices charged for portrait postcards. Permit me to answer the question this way. In some hands photography is a respectable profession, with others a trade, and with some only a contemptible employment.

The first I define as those who have a place of business, and let it be known, and depend on such customers as visit their rooms for their work, and who never descend to solicitation, and have no canvassers nor clubs. All honor to such, but they are few. The second class are mere traders, who try dodges to catch customers. One party will write and ask all the Provosts of Scotland for a sitting, another will ask all the Justices of the Peace. They are so anxious to have a portrait of all these worthies just to look at! Another watches the death-roll and writes, condoling with friends, and asks if they have a photograph of the deceased, because they can enlarge it so cheap and nice, and, of course, leave the local photographer alone. If I were to reveal the names of these traders it would surprise your readers and shame the traders.

The third and contemptible class have degraded photography down to the lowest level, and beneath a trade. Some of this class have learned the trade, while others have not. The public are gulled by them with cheap rubbish. Some are local (for a time), others are on "the tramp," with a tent, or hire a shop or cellar, gather all they can, and then depart to pastures new. The "company" may be only one man. Of course, cheapness and rubbish are the foundations they stand on. Even a local man will advertise small numbers of cabinet photographs at 3*d*. (6 cents) or 4*d*. (8 cents) each. How they live is a puzzle. Poor creatures! I wonder they don't learn to cobble shoes or shave faces at night, and thus eke out a living. (I give them the hint gratis.)

Then there is another class, viz., those whom I will call mean auxiliaries. In a small town of 5000 to 7000 there

may be a dozen of these sham amateurs who cater for all the work they can get. We may find the chemist, tailor, cobbler, draper, postman, hawker, shop-boy, etc., etc. Just fancy the meanness of a chemist doing twelve postcard stamp photos at 6*d.* (12 cents), and yet none dare sell chemicals unless trained as a chemist to sell poisons. Of course, all these go on the cheap lines, and the productions are soon faded away, to the regret of any that value them. But in this low gutter trade of photographs any pedler can buy a camera and commence employment. I don't know any trade that is so degraded in work, want of skill, and prices. I cannot describe all the evils, and I need not suggest a remedy. I have noticed what others have written in the "B. J." This I will say, that it is time the public were protected. All the system of canvassing, with its detestable frauds, should be abolished. None but those properly trained should be allowed to charge the public any price. All amateurs should pay a license and be fined if they charge for their work. Then a trained man who has a place of business, when he cuts down prices, should be asked the reason, and a deputation of The Professional Photographers' Association wait on him and raise a subscription to tide him over a difficulty if he has any. Is the above impracticable? It is hard lines to see our once reputable calling not only "gone to the dogs," but to the donkeys. For obvious reasons I sign myself

DISGUSTED.

## STRIPPING FILMS FROM GLASS NEGATIVES.

IT frequently happens, writes Mr. H. W. Bennett in *The Amateur Photographer and Photographic News*, that a photographer desires to strip the film from a negative and transfer it to another piece of glass. The glass may be cracked or the transfer may be desired for the purpose of reversing the film, so that the negative may be available for single transfer carbon printing without reversal of the subject. Whatever may be the reason for desiring to make the transfer, the photographer finds himself confronted by difficulties which prevent him from carrying out the work successfully.

The difficulties usually encountered in stripping a film from its support, and transferring it to a new plate of glass, are:

1. The separation of the film from its support without breaking or tearing.
2. Prevention of enlarging and distortion.
3. Manipulating the film while off the glass.
4. Laying it down on a new support without air bubbles or wrinkles.
5. Securing its adhesion to the new glass.

In my own work it has been found to be a comparatively simple matter to overcome all these difficulties, though the operation is one requiring great care and delicacy in manipulation, especially when treating large negatives. Care is particularly required to avoid breaking or tearing a film which is being removed from a cracked or broken negative, but it is not a really difficult task. Frequently wood alcohol has been recommended by photographic writers for reducing a film to its original dimensions when it has expanded during stripping. In my experience, this is in every respect undesirable. Although a film may be reduced to its original size by the use of spirit, the enlarging and

subsequent reduction are invariably accompanied by distortion. The film contracts unevenly, and the consequent alteration of form is absolutely prohibitive in many subjects, and undesirable in all.

Before commencing the operation of stripping, the film must be very thoroughly hardened, and the successful accomplishment of the work will depend very largely on the thoroughness of the hardening process. The solution should consist of two parts of commercial formalin to three parts of water; the negative should be immersed for about five minutes, and then washed in several changes of water for fifteen or twenty minutes, and then dried.

This formalin solution is very strong, but it possesses the power of rendering the gelatine film very hard. In using a weaker solution, there is a serious risk of slight enlargement and distortion of the film during the operation of transferring to the new support. By adopting the strength given, it will be found practicable to handle the film with reasonable freedom, and transfer it to the new support without injury or distortion.

The negative must be thoroughly dried before the operation of stripping is commenced. When dry, the film should be cut right through to the glass, about an eighth of an inch from the edge in the case of a large negative, or a sixteenth part of an inch for a small plate. A very sharp knife and a straight-edge must be used. All four edges of the negative must be cut in the same manner. The object of this cutting is twofold. The first is the securing of a clean, sharp edge to the film when lifting from the glass, so as to obtain immunity from breaking or tearing. The edges of a negative plate hold the film very tenaciously, and there is great difficulty in lifting the film successfully from the original edges; the risk of breaking or tearing is very great. This risk is increased by the fact that the edges of the film are frequently comparatively ragged. By means of the clean, straight edge given by cutting through the film, the risk of tearing is practically removed. The second object of the cutting is to ensure that the film is slightly smaller than the glass to which it is to be transferred, as this greatly facilitates laying it down successfully.

At any time after cutting, the film is ready for stripping and transferring. The dry negative is immersed in a strong solution of washing soda. The solution is prepared by dissolving one ounce of washing soda in five ounces of water. Hot water should be used for preparing the solution, but it must not be used until quite cold. Sufficient solution must be used to cover the plate well, and care must be taken that no air bubbles are allowed to remain on the surface of the film. The plate must remain in this solution for fifteen minutes, or a little longer. It should then be lifted out, and placed in a second dish containing a solution of hydrochloric acid, half an ounce of the acid to ten ounces of water. It must be taken direct from the soda solution to the acid bath without any intermediate washing. As soon as the plate is placed in the acid bath, innumerable air bubbles will be seen to form between the film and the glass; it should not be touched while these air bells continue to form.

After about five minutes, the operation of stripping may be commenced. First, the narrow edging outside the cut should be carefully lifted from the glass, removed from the solution, and thrown away. If any small pieces are allowed to remain in the solution, they may become a source of trouble by clinging to the film during transferring. As soon as these edges are entirely removed, the film itself may be slowly and carefully lifted from the glass. The best method is to apply the tips of the fingers to one end of the

film, and roll it slowly off the glass. When about a quarter of an inch has been rolled back on to the film, the fingers should be moved back on to the glass from which the film has been removed, and the rolling movement continued, keeping the fingers in contact with the glass and the turned-up portion of the film. The fingers are always resting on the glass, and pressing against a roll of film that is being pushed along on the glass plate as it loosens its hold. The film will not curl into a roll by this method of working, but will simply fold back on to itself. The whole of this operation must be carried out while the plate is well covered by the acid solution.

The rolling back of the film must be continued until about half of the film is loosened, and turned back on to the other half. The loose portion should be then replaced in its original position, and the work recommenced from the opposite end, and continued until the film is entirely loosened from its support. The second half must then be returned to its original position, and the film will be lying flat on the glass, but quite free.

A piece of thin paper, slightly smaller in each direction than the film, must be put in the acid solution over the film, and allowed to soak for a few seconds, until it becomes quite limp. While this is soaking, the new glass support must be prepared for receiving the film. A solution of gelatine should have been previously prepared by dissolving a quarter of an ounce of gelatine in five or six ounces of water. The gelatine must be first soaked in cold water for about an hour, and then dissolved by draining off the cold water, and adding the requisite quantity of very hot water. Immediately before using, one grain of chrome alum dissolved in two ounces of hot water should be added to the gelatine solution, a little at a time, with constant stirring. This will make the total bulk of solution about seven or eight ounces.

The paper lying on the film should be carefully pressed into contact, care being taken to avoid wrinkles or folds, both in the film and in the paper. The glass plate should then be flooded with the hot gelatine, the paper and film lifted together from the acid bath, and adjusted in position on the gelatinized glass, and lightly but firmly squeegeed into contact. The strokes of the squeegee must be as even as possible, and always made from the centre of the film toward the edges and corners.

The plate bearing the film and paper should be put aside for about ten minutes and then the paper may be carefully peeled off without any risk of disturbing the film. If the squeegeeing has been sufficiently careful, there should be no air bells between the film and the glass. The film should lie perfectly flat and even, and in good contact throughout. It should then be put away to dry.

It will be noticed that the film is taken direct from the acid solution, and transferred to the new support without washing. It is imperative that the film should not be put in water, or expansion and distortion are inevitable. By following the method given, the film may be attached to its new support perfectly and without the slightest distortion or injury.

After drying, the film may be washed, to free it from the acid, but this operation must be performed very rapidly. It must not be prolonged more than eight to ten minutes, but by using seven or eight changes of water, the acid may be removed sufficiently for all practical purposes. After drying, the film should be varnished in the usual manner.

This method is thoroughly practical and reliable. It requires neither special skill nor the handling of dangerous chemicals or substances difficult to obtain. For hardening the gelatine solution, if chrome alum is not available, five grains of ordinary alum may be substituted.

As described, the procedure is that to be followed for transferring a film from a cracked or broken glass to a new support. It is self-evident that, by a very slight modification, it forms a very simple means of reversing negatives for carbon printing by single transfer when reversal of the subject is not permissible. The modification must be made when the film is lying in the acid solution. In the case of a small film, it may be turned completely over in the acid solution when stripped from the glass before the paper is applied. Then, by applying the paper and transferring to the new glass, as already described, it will form a reversed negative. In the case of a large plate, 8½ by 6½, or larger, the following method may be adopted if the former is found too difficult. Press the paper into contact with the film while it is lying in the solution, without attempting to turn it over. Then lift the paper, with the film clinging to it, and turn it over in the dish, the film being now uppermost. Then apply a second piece of paper to the film in the same manner as the first, and separate the top paper and the film carefully from the paper first attached to the film. Then the hot gelatine should be applied to the glass plate, and the transferring continued, as usual. The latter is the plan that I have always adopted for sizes above half plate.

## PHOTOGRAPHIC MYSTERIES.

Most photographers of any experience have been confronted at some time or another remarks a writer in the *London Times*, with a photographic mystery; with some result which baffled all their attempts at explanation, and was set down, according to their habit of mind, to supernatural intervention or to a shortcoming on the part of the manufacturer. In photographic materials, plates and films more especially, we have a product which has been prepared from first to last with a view to confer upon it the very utmost sensitiveness to the most feeble external impulses. It is coated with a preparation designed to respond instantly to the gentlest and most momentary touch of the delicate finger of light itself.

The insensitiveness of photographic materials is as remarkable as their sensitiveness. A plate which has its composition profoundly altered by the impact of a faint light for a fraction of a second may be subjected to most violent experience with other forms of energy and emerge unscathed. It may be heated or cooled, jarred, strained, electrified, and still be unharmed. But it is not wholly irresponsive to other agencies than light, and now and again these reach it and leave their impress to puzzle the photographer. Besides these there are unsuspected ways by which light itself may reach the sensitive surface.

The $x$, $\alpha$, $\beta$, and other rays share with light the responsivity of the photographic emulsion. A bottle of an uranium salt left standing near a box of plates will leave its trace upon them. So will an incandescent gas mantle and other radio-active substances. No matter may appear to pass; the packet may be completely impervious to light; but the plates are affected. A few years ago such a result would have been baffling. It was a mystery which defied solution. Now we look upon it as a commonplace.

Those who like to try an experiment should take two unexposed plates, face to face as they are left by the makers, wrap them in enough black paper to be perfectly sure that there is no risk whatever of light getting to them, and place on the outside of the packet some piece of metal of well-defined shape, a coin or

piece of perforated zinc for example. On top of this may be put a piece of paper on which is a little heap of the fragments of an incandescent gas mantle; one that is worn out will do. The whole may be left undisturbed for two or three weeks; and then, if at the end of that time the plates are developed, they will be found to show the outline of the metal, which has been impressed on them through all the black paper and through the glass of the plates themselves.

This is a case of radiation; but chemical emanations may play tricks of a very similar kind on the photographer. If we take the perforated zinc, give it a rub with a piece of glass paper so as to leave the metal bright, and leave it, not in contact with the film of the plate, but very near it, separated, say, by the thickness of a visiting card, it will impress its pattern on the film in a few hours, as is seen when the plate is developed. Aluminium does the same. This is due to material emanations from the bright metal, which can be stopped by interposing a sheet of glass. A film of oxide on the metal is a protection, and cleaning it was, therefore, suggested.

Many a photographic mystery has had its origin in this action. Both aluminium and zinc have been used for the shutters of dark slides; the former is still popular for the purpose and answers very well. But if the side next the plate is rubbed or scratched so as to leave the metal bare, there may be trouble. Quite recently an amateur photographer was puzzled by two straight black lines which appeared in the same position every time on a certain proportion of his negatives. The subject was investigated, and it was found that all the plates so marked had been exposed in one particular dark slide and in the same half of it; and on looking at the aluminium shutter two straight bright scratches were found on its inner surface exactly corresponding with the marks on the negatives. Something in the top of the slide made the scratches, as the shutter was put in and out, and had kept them bright; and as soon as this was remedied the trouble vanished. Metal sheaths may act in the same way.

Every photographer knows that if he wraps up a plate with its sensitive surface in contact with printed matter, the print will set off and show in development. But it is not so generally known that this will take place even if the print is not in actual contact with the surface of the plate. If there is a film of air, or even if a clean piece of paper is interposed between the print and the plate, given time enough—a few days is generally sufficient—the plate will be affected. This action is a chemical one and closely related to that of the metal just mentioned. The interposition of a sheet of glass between print and plate stops it absolutely.

Yet in spite of this a pair of plates, face to face, have been wrapped in printed paper, and the print has shown on development, its image having been impressed on the film through the glass from the back. Here was a mystery, indeed; but its solution was found. The paper was an "art" or coated paper; its coating was found to contain calcium sulphide, akin to luminous paint, and although its luminosity was too feeble to be perceived by the eye, it was patent enough to the plate, except where the printing ink obscured it. This, therefore, was not a case of radiation nor of emanation, but of actual light action itself; and in this we have one of the most fruitful sources of some photographic mysteries.

A photographer went to photograph a royal party leaving a big public building. He got a number of other views and kept his final plate for the party. At the last moment their plans were altered, they left by another door; and his wait of half an hour or so was wasted. How-

ever, he put all his plates, including the unexposed one, into a dish and developed them, and on the unexposed plate he got a good negative of the door by which they should have left. He was certain he had made no exposure, yet there was the picture. The solution of this was found to be that his shutter had not quite closed, and all the time he was waiting with his slide drawn, he was, unknown to himself, exposing with what amounted to a small stop on the building.

The most prolific source of mysterious images is to be found in pinholes in the camera or bellows. A pinhole acts as a lens. It requires a long exposure, it is true; but it gives a fairly sharp image at any camera extension, and it is a well-defined image that attracts the photographer's attention. The vast majority of the results of these subtle agencies go unnoticed because they take the form of more or less general fog; but when he gets on his plate not only the thing he was photographing but an unmistakable picture of something else which he has not knowingly photographed, he realizes that there is something going on beyond his control. Some of the images due to pinholes in the camera have been very remarkable in their clearness and definition, although they are the simpler of photographic mysteries. For example, a number of otherwise successful photographs taken during an exploration in Central Asia were marked by the constant presence of figures which were not before the camera at the time; and some of these figures were recognized as those of members of the party. They were traced to a hole in the camera front which had been made by the extreme point of a screw that had subsequently dropped out.

In bygone days when the negative glasses were cleaned off and used again and again, photographers learned how difficult it was to secure chemical cleanliness; and the traces of former images on the glass sometimes manifested themselves in a very remarkable way under the influence of the silver intensifier then used for development. But this source of photographic puzzles vanished when it was found that to use new glass for plate making was cheaper than to clean the old.

## NEATNESS IN THE STUDIO.

Taking it all round, we are inclined to think that the photographic studio is the most difficult place imaginable to keep clean and tidy. Do what you will, the general effect after taking a few sitters is more reminiscent of a rag shop than the most important room in a presumably artistic establishment. Certainly, public opinion rather expects untidiness in such a place, but a lady client in an expensive dress would much perfer cleanliness, while orderliness is essential if operating is to be conducted with any degree of comfort and despatch. When one is obliged to store canvas, conservatories that rival Kew, palatial palaces, and weird woodlands in one and the same place, as well as broken balustrades, stone steps, garden seats, oak settles, several varieties of chairs, not to speak of the amount of space occupied by small headgrounds, reflectors, and stone, the general effect is bound to be somewhat incongruous. Try as one will, it is impossible to carry out the theoretical idea that a studio should resemble an ordinary room. To secure the most pleasing results, both in the sitter's expression and subsequent order, every effort should be made to make the studio as inviting as possible. Many people are affected to a remarkable extent by their

surroundings, and most are more susceptible than usual when visiting the photographer's, for even now our craft is still tinged with the mystery of the unknown.

It is essential that the general scheme of decoration be extremely reserved and subdued, and as harmonious as possible. A bold scheme, however, pleasing it would be in a private room, with a carefully selected suite of furniture, would appear merely as a discord when so many varying articles are collected within it. The usually advised gray walls we do not care for: they are too cold, and likely to prove quite out of keeping with any upholstery. It may, however, be necessary to use this color if the studio is narrow and reflected light essential. When a free hand can be taken, a green or a brown scheme appears to us to be much more cheerful and has the advantage that drapery, curtains, etc., can easily be obtained to match. To make a studio at all presentable every opportunity of securing repetition should be taken in order to give the general appearance a feeling of unity. Variety there will be and to spare without seeking for it. If the walls are plaster, a good matte paper, devoid of pattern, should be used with perhaps a quiet stencil for frieze. Many studios have matchboard partitions; than which nothing looks worse. They are, however, remarkably easy to treat, since anyone of average intelligence can apply a fabric wall-covering, skirting-board, and picture rail to such an amenable base. The art canvas in various colors supplied at about 75 cents per yard of 52 inch wide may be stretched and tacked in position, or the fabric hangings sold under various fancy names and prepared for pasting on the wall may be used. They are only 36 inch wide and more expensive per yard, but we find them very much more durable and really easier to hang. If the ordinary art canvas is used, it is essential that the matchboard be first papered over, preferably on both sides of the partition, with some cheap paper; ordinary brown will do. If this is not done, dust will work through the joint of the boards and make dark streaks on the canvas. The doors and other woodwork should be painted a shade darker than the wall covering, but never have the doors picked out in two shades.

Floor covering is another important item. Without any hesitation we recommend a good linoleum. It is easy to keep clean, castors on the various accessories run easily on it, dropped chemicals will not affect it, if good it is extremely durable, and, lastly, thoroughly artistic designs can now be had. Cork carpet is very warm and elastic to the tread, but we find the colors apt to become dirty and degraded in parts. We do not care for perfectly plain, self-colored floor-cloths, since they are monotonous and show the dirt badly. Any bold pattern is to be avoided, especially geometrical and floral designs. A small indefinite pattern of a slightly darker or lighter shade than the ground are quite inoffensive; but, as a general rule, at the risk of being called over the coals by the purists for advising an imitation, we cannot conceive a more admirable material than inlaid linoleum in simple parquet designs. Of course, a real parquet floor is the height of one's ambitions, but very few photographers are in a position to, or would be justified in, having one laid. When selecting a design, it must not be forgotten that parquet patterns are innumerable, and that the majority are unsuitable for photographic purposes. One or two small rugs will be required to break up the floor space, and if of an almost plain design will be useful for interiors. Here, again, we prefer to match the general color scheme rather than employ Oriental rugs, rich as they appear to the

eye, but totally unsuitable for inclusion in a picture.

The skylight shades are usually black, and this from practical motives is advisable. Any other curtains, however, should be in a plain, unpatterned material of the prevailing color. In place of the uusal black camera cloth, we have one made out of the same fabric as our curtains.

The trite old saying, "A place for everything and everything in its place," should occupy a prominent position in that imaginary spot known as one's mind's eye. It will often be found that orderliness and neatness take the place of muddle merely by changing about the usual position of accessories: this stool will go under that chair, this chair under that table, and so on. It is foolish to keep any unused lumber; its room is of greater value.

Backgrounds are perhaps the most insistent sign of photography in the studio, and too often their general appearance brings them into undesirable prominence. One of the first moves in the improvement of the studio should be some neat and compact system of storing the grounds. The rolled-up ground does not look particularly pretty, and we find it adds to the appearance if a wide piece of moulding, preferably on the same level as the frieze moulding, is fixed in front of them to hide them when rolled up. Grounds on stretchers are ungainly and very frequently an eyesore, owing to ragged edges, crooked rows of tacks, and bare white stretcher or stretcher edges showing. The two latter defects are overcome by painting the frame before stretching the background, and the two former by tacking three-quarter inch black tape over the lines of tacks and cutting off any ragged edges of background not covered with a sharp knife. After executing these permanent aids to neatness, the more frequently needed attentions of the scrub lady should not be forgotten. The floor should be washed at the very least once a week, while the upholstery should be brushed, and the camera, furniture, and ornaments dusted every day. Above all, do not leave lying about stray negatives, printing frames, prints, drying racks, mounts, blotting paper, or any of the manipulative branch of the work. Of course, some studios are obliged to use the studio as a general workroom, but some scheme should be devised to keep such signs of one's business as unobtrusive as possible.—*British Journal of Photography.*

## PROFESSIONAL PHOTOGRAPHERS' ASSOCIATION OF ENGLAND.

We have just received a copy of the official program of the forthcoming "National Convention" of the Professional Photographer's Association of England, an association similar to our Photographers' Association of America. The membership of the English association is not restricted to studio proprietors and assistants, Mr. H. Snowden Ward, editor of the *Photographic Monthly*, being this year's president. Judging from the program the English photographers should have an enjoyable time at Canterbury. As it may interest our State and National "conventioners," we print the program in full for comparison.—Ed. W. P. M.

### Monday, July 5.

Morning.—Members of the Camera Club will attend at St. George's Hall to conduct parties to places of interest in and around the city.

Evening at 8.—Reunion. The proceedings will open with a few words of welcome by his Worship the Mayor, Mr. F. Bennett-Goldney, after which the President, Mr. H. Snowden Ward, will deliver his inaugural address. At the conclusion of the Presidential address Mr. and Mrs. Ward will be At Home to members and friends, after which the annual general meeting will be held.

TUESDAY, JULY 6.

Morning at 9.30.—Excursion by brakes to Patrixbourne, Wingham, Wickhambreaux, and Fordwich, all of which possess interesting old churches, and the last-named a unique town hall.

Evening at 8.30.—A lecture entitled "Canterbury and Its History" will be given by Mr. F. Bennett-Goldney, F.S.A., followed by a meeting of the new Council.

WEDNESDAY, JULY 7.

Morning.—Visit to the Cathedral, where the Rev. Canon Moore, D.D., on behalf of the Dean and Chapter, will hold an official reception at 11 o'clock.

Afternoon at 3.—His Worship the Mayor, Mr. F. Bennett-Goldney, and the Mayoress will give a garden party at their residence, "Abbots Barton," at which the official Convention group will be taken by Mr. H. B. Collis as 3.30.

Evening at 7.—The annual dinner at the County Hotel.

THURSDAY, JULY 8.

Morning at 9.30.—Excursion by train to Rochester, which is particularly rich in objects of archæological and historical interest, many of the former dating back to Roman and early Norman times. The cathedral, castle keep, and Eastgate House (now the museum), will possess special interest for students of architecture.

Evening at 8.30.—A paper will be read by Mr. C. Welborne Piper, followed by a paper by Mr. C. H. Bothamley entitled "Some Aspects of Photographic Record Work."

Friday at 9.40.—Excursion by train to Rye and Winchelsea. Rye is full of objects of interest, amongst which may be mentioned St. Mary's Church, with its ancient clock, the monastery, the Town Hall, and the Ypres tower. Many fine views may be obtained from the harbor and the east and west cliffs. In Winchelsea, which is little more than a village, the chief objects of interest are the old church, the Court Hall, and the three gates; the surrounding country also is very picturesque.

Evening at 8.30.—A paper will be read by Capt. Owen Wheeler on "High-power Telephotography," followed by a lecture by Mr. F. Martin Duncan on "Color Photography Applied to Natural Science."

SATURDAY, JULY 10.

The last excursion of the Convention of 1909 will leave Canterbury by train for Maidstone at 9.40, where conventioners will be met by members of the Maidstone Camera Club, who will act as guides to the various places of interest in and near the town.

The handbook contains a list of the hotels and apartments where accommodations may be obtained, also a list of photographic dealers and dark-rooms in Canterbury, and other places visited.

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*Yellow Bromide Prints.*—Are often caused, says the *Photographische Chronik*, by fixing them in daylight. One is frequently tempted to examine a bromide print in full light before it is fixed, but it should never be taken from the dark-room, nor the hypo bath, before fully five minutes' immersion.

# THE OIL PIGMENT PRINTING PROCESS.

BY JOHN H. GEAR, F.R.P.S.

[THE oil pigment process introduced some eighteen months ago has met with a very favorable reception. It offers a wonderful latitude in artistic expression, and, while the pictorial workers who have taken it up confine their efforts to landscape effects, it has great possibilities in portraiture. We have pleasure in giving below Mr. John H. Gear's description of the process, given before the Royal Photographic Society.—ED. W. P. M.]

Mr. Gear said: In June last, when we enjoyed the Demachy exhibition of oil prints in this room, I made a remark to the effect that the prints exhibited on the walls on that occasion had struck a note in my artistic temperament that would vibrate for a considerable time. That note vibrates even more strongly today than it did last June. I felt firmly convinced at that time that there was a remarkable difference between the character of the oil printing process as we saw it rendered that evening by M. Demachy and the examples of the process that I had seen previously. Indeed, I felt that there was a wide gulf between the two renderings, and it was my firm determination to exploit the difference if possible. With characteristic kindness, our Honorary Fellow in Paris expressed himself perfectly willing to enlighten me on points about which I had some doubt, and in a measure this evening, to the extent of my ability, I am interpreting M. Demachy's methods, and I would like to take this opportunity to publicly tender him my thanks for his kindness.

In speaking of the process, M. Demachy said to me, "Really, there is very little in it." Well, in one sense, I also feel that there is very little in it, and yet, in another sense, I feel that there is a depth in it we have not fathomed yet. M. Demachy told me that he worked daily for three months at the process before he got a result with which he was satisfied. When I returned home, after having received the information I desired, I worked daily for two months before I produced a print that quite satisfied me. The process, although extremely simple in certain respects, is not easily mastered without a good deal of practice and perseverance.

I do not intend to theorize or to be dogmatic this evening, but before proceeding to a simple demonstration, I may perhaps be allowed to claim a few advantages for the process. The advantages, taking the process fairly, far outweigh its disadvantages. The disadvantages are generally of our own introduction, and consist in using the process in a manner in which it was not intended that it should be used. There is a feeling in some quarters—a similar feeling existed in the early days of gum bichromate—that it is only necessary to print in the new medium in order to get a successful pictorial result; and if the inexperienced worker produces by chance a good result, he exclaims, "I shall keep that and send it to the New Gallery," while if he produces not a bad, but perhaps a peculiar result, his exclamation is, "I shall send that to——" well, to another exhibition. Now, Sir, that will not do. The mere fact of printing in oil pigment or in gum bichromate will not in itself make an artist of any one, and the worker will have to soar a little above ordinary or purely mechanical photography if he wishes to achieve anything like success with this process. When we have a pro-

cess in our hands possessing such possibilities of control, there is all the more danger of going astray in the control we exercise. The amount of control is perhaps the first and most important of the points recommending the process to the photographer. We have all felt, doubtless, that we are more or less fettered by the mechanical nature of most printing processes. Here in this process we gain something of the power of the painter. Not that I wish to ape the painter-artist; my point is that we have a power approximating to the painter's power in so far as it enables us to throw something of our own personality into the work we generally do upon the negative or upon the print, but in a more decisive manner. For instance, in the oil print we can produce the effect of real sunlight—sunlight without harshness, with a delicate gradation throughout—and it is equally possible to represent the shadow detail with all the luminosity that we see actually in nature yet possessing a richness and depth unequalled by any other printing process. If we attempt so wide a scale in the majority of processes the gradation must suffer somewhere or other. We make a negative having a gradation suitable for the printing process we intend to adopt. We work upon the negative until we have gone the whole length of our tether in that direction. Then we work upon the print. No one is supposed to work upon the print, nevertheless it is done extensively. But with all that work upon the negative and upon the print we cannot produce with any ordinary printing process the result we desire anything like so directly and so satisfactorily as we can with the oil pigments. I may refer here to one of the prints hanging on the wall. It was made by Mr. Bertram Wickison, who in the oil print has produced a real sunlight effect, yet, as you will see by the direct print from the same negative which hangs by its side, the photograph was taken in diffused light.

Another of my examples illustrates the advantage we have in the oil process of getting rid of incongruous detail. We have as our subject an interior with many differing styles of architecture. In fact, it is so incongruous that few people would care to have an ordinary photograph of such a subject hanging in their room or even placed in their portfolio. But in the oil process it is possible to make the parts which are incongruous subservient to the others, and a softness is obtainable even when the original negative is bright and clear and crisp. In another print we have a very fair effect of sunlight and shadow, the planes of the picture having been very considerably altered. A tower, which in the direct print was as much forward as the other buildings, has been put back to its proper plane, the brilliancy of the other parts of the subject has been increased and the shadows considerably deepened, yet they nevertheless possess a full share of detail and luminosity. Some may say, possibly, that this alteration of planes is incorrect, but I can only state that the effect I had in my mind to produce has been gained. I know that those whom we may term photographic purists will find no advantage in this process. If workers prefer to keep directly to their print no one will question their right to do so. But there are many who desire to introduce into their work sentiments which cannot well be conveyed by the ordinary printing processes, and to such I appeal this evening. An artist unintentionally paid me a compliment upon some of the prints that I am showing you. He was arguing that photography could not be artistic, or rather pictorial, to any extent. It was too mechanical. Then he turned to some of these examples. "Very beautiful reproductions," he said, "but they miss that individualism which is pos-

sessed by a drawing. The individualism was in the originals from which you copied." I was able to assure him that, so far from being copies of paintings as he imagined, if he had seen the originals in the shape of direct prints from the negatives he would not have given a penny for one as a picture postcard. He was somewhat surprised to find they were not merely copies of paintings and preferred not to further argue the subject.

I now propose to give you the working details of the process. In the first place, it is necessary to have a negative, and a correct negative; it is not every negative or every subject that will be suitable. Some apparently imagine any negative will answer the purpose; it will not. We must endeavor to have that gradation which will do justice to our printing process. It matters not whether we have a direct negative or an enlarged negative. I prefer the latter. The small negative facilitates the taking of the picture and enables me to produce the more ideal negative for the process by compressing or increasing its gradation, and, further, the small negative offers greater facilities for producing combined negatives when two, three, or four may be required to obtain a certain result. With regard to the size of the negative; it must be remembered that there is great labor attached to working a large print, while on the other hand, I do not consider that a small print does justice to the process. A whole plate negative is a very reasonable size, and one that will not be outside the powers of most photographers to work. It will be advisable not to attempt a larger result in the early stages of the worker's experience. A negative possessing a veil or fog is a negative that is totally unsuited for the process. However good a print it may make in gelatino-chloride or bromide of silver, it will not make an oil pigment print with the characteristics we expect to find.

We have a great choice of papers, but, nevertheless, the inexperienced will find the selection of a paper a difficult matter. We want a thinly coated gelatine paper. That which is used for the double transfer carbon process is the most suitable, but although several papers may be coated with the same emulsion, they may not all be suitable for the process, and the difference will be felt considerably in working. There is a belief existing that a thick coating of gelatine is necessary in order to give contrast or latitude in working the print. I do not find it so. A thin coating, if worked in a certain manner, gives one all the latitude that could be desired.

My sensitizing solution is:

| | |
|---|---|
| Bichromate of ammonium..... | 100 grains. |
| Carbonate of soda..... | 10 grains. |
| Water..... | 4 ounces. |

We further require absolute alcohol, or at least 90 per cent., and we then take one part of the above solution to two parts of alcohol, mixing immediately before coating the paper. For coating it is my practice to use a 2½ inch flat hog-hair brush, and, after pinning the corners on a drawing board, to coat the surface only by brushing in each direction, giving as even a coating as possible. Streaks will be noticed, but they will disappear as the paper begins to dry. In sensitizing it is important to remember always to cut the paper with a good margin, at least one inch each way outside the size of the negative. The paper is then subjected to the action of the air for fifteen or twenty minutes. The drying must be carried out in a room from which even the faintest ray of daylight is excluded. The paper works better if desiccated by holding it over a slow combustion stove, electric hot plate or gas ring. I do not, however, favor the gas ring, as chromic salts and gelatine do not work well when exposed to the

products of combustion of gas, and difficulties may ensue. The reason why darkness is necessary during the drying operation is because the slightest action of light causes a thin film of insoluble gelatine to form on the paper, giving a muddiness and flatness that will destroy the brilliancy of the resulting print. As a further precaution against any such effect, it is best to use the paper as quickly after sensitizing as possible. I have used it with an interval of twenty-four and even forty-eight hours after sensitizing, but with uncertainty. As the paper becomes desiccated it will show a tendency to be rather hard, and to curl, preventing perfect contact with the negative during exposure. This can be remedied by placing it in contact with the negative, putting the back of the printing frame in position and the springs in their proper places, but not pressed down for five or ten minutes before exposing the frame to daylight.

The printing varies with the strength of the negative. I do not use any actinometer, for the reason that if we use an actinometer for silver paper, when the light is changeable or becomes weak or slightly yellow, the silver paper will not then be affected to the same extent as the bichromated gelatine, and we may be badly deceived in the printing through that variation. In diffused light, printing may occupy anything from two to ten minutes, according to the character of the negative. The negative which I now pass round, and which is one of good contrast, received four minutes' printing on Saturday last, in bright winter light. But on Monday —a dull February day—the same negative required about fifteen minutes' printing. There is a visible image in the print, but that image must not be examined in daylight, as there is a great liability in daylight to produce that slight veil which will cause trouble. Artificial light ought to be used entirely, in which the stage of printing should be judged. On removing the paper from the frame it should be immediately placed in water, and here again the greatest care is required to ensure that it shall be equally soaked. If by chance one part of the print should not be soaked for five or ten minutes equally with the rest, there will be trouble in the pigmenting, and all the soaking the paper may subsequently receive will not make it right. So important is the evenness in this part of the operation that if an airbell were left under the print for a few minutes after the first wetting, no amount of washing afterwards would get rid of the defects produced thereby.

The effect of soaking the paper for half an hour is to produce a swelling of the gelatine; in other words, the gelatine absorbs the moisture according to the amount of exposure received under the various tones of the negative. The parts representing the deeper shadows will have been rendered insoluble, but in the highest light, which has received no exposure, or practically none, the gelatine will remain quite soluble. The printing should be continued until just the faintest detail is visible; in the highest light the half tones and shadows will be strongly marked. Prolonged soaking at a low temperature will not have so good an effect as a shorter soaking at a higher temperature. I have made a series of tests with the gelatine upon this paper, and find that under certain conditions if it is wetted again and redried the gelatine will probably not dissolve under a temperature of 105 degrees, but will dissolve at 85 degrees if wetted once and not dried. Care must be taken, however, not to go to too high a temperature, and it is much safer to use a thermometer than to trust to one's unaided judgment. The water for soaking should not be higher than 70 degrees; 65 for preference. A soaking of fifteen or thirty minutes in the water at

65 degrees will swell the gelatine sufficiently and give a relief that will not be obtainable at a longer soaking at a low temperature. If we now wish to make a break in the process, leaving the pigmenting to a more opportune time, we can at this stage suspend the paper to dry. I rather prefer to make this break instead of proceeding immediately to the pigmenting operation, and I would recommend it especially to the inexperienced. Gelatine that has once been dried never becomes so soft again, and its greater resistance or toughness is an advantage.

(To be continued.)

## THE PHOTOGRAPHY OF COLORED OBJECTS.*

No subject in practical photography was in greater need of an authoritative exposition than the photography of colored objects, and the need is well met by this book of Dr. Mees, who is the leading authority on color plates and screens. The three opening chapters deal interestingly and clearly with the nature of color, the sensitiveness to colored light of photographic plates and their application to the reproduction of colored objects.

The commercial photographer has often to secure a color contrast for a special purpose. Let us take a practical instance illustrated by the book "Given an engineer's blue print, showing white lettering on a blue ground. We require to reproduce it for a line block. This blue print has a strong absorption in the red. If we photograph it through an A screen, the strong red screen used for tricolor photography, or, better, through the F screen made specially for this work, upon a panchromatic plate, which is sensitive to this deep red light, then we shall get the maximum contrast which can be obtained, and, as a matter of fact, the blue will be to all intents and purposes an intense black, so there is no difficulty whatever in obtaining our negative."

The proper rendering of color in the photography of furniture is another difficulty that is readily overcome by the proper use of color plates and screens. The illustrations given in the book of pieces of furniture photographed with and without proper screens and plates show results that would be hard to believe but for the author's guarantee, again quoting from the text, we find that "if a piece of reddish mahogany is photographed on an ordinary plate, no trace of grain is usually visible. The photograph is made by blue light, to which both the red darker portions and the yellow light portions are black; to give an increased exposure simply results in the photography of a plentiful crop of normally invisible scratches. If, however, a panchromatic plate sensitive to the red is used, with a strong yellow screen, the results are entirely different; the scratches disappear and the grain comes up in the most wonderful way.

In portraiture it is, of course, essential that colored objects should be rendered in correct monochrome, and Chapter V treats portraiture very thoroughly. This chapter should be studied by every professional photographer, and is alone worth many times the price of the book. It is a decided acquisition to the literature of photography and a good example of what a text-book ought to be.

* THE PHOTOGRAPHY OF COLORED OBJECTS. By C. E. KENNETH MEES, D.Sc. Croydon: Wratten and Wainwright, Ltd. American agents, Tennant and Ward, New York. 69 pages; illustrated; 56 cents postpaid.

# TRADE NOTES.

RODENSTOCK'S Double Anastigmat "Eurynar" is the latest addition to the lens family in America. Coming from Germany, the home of many good lens factories, this lens requires less in the way of an introduction than would a lens hailing from, say, the Sandwich Islands. The Rodenstock Optical Works have been established in Munich for many years, and their lenses have a reputation for quality, combined with a reasonably moderate price. The "Eurynar" comes in three series: $f/6.8$, $f/5.4$, $f/4.5$, and the prices will interest anyone who is contemplating the purchase of a lens. James Frank & Son, Augusta, Ga., have been appointed sole American agents, and will be glad to supply further particulars to those interested.

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WITH the National Convention but a few days off, we would again remind those of our readers, who are going to Rochester, and have not engaged their rooms, that it would be a wise move to do so at once. All indications point to a much larger attendance than usual, and "a bird in the hand is worth two in the bush." The Seneca Hotel is Rochester's newest and finest hotel. It is the official headquarters too, and those who wish to be where convention history is in the making had better write in for their rooms without delay.

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VOIGTLANDER AND SOHN, of the Brunswick Building, New York, have just issued their new 1909 camera catalogue, which they will be glad to send free of charge on request. A reflex camera is a most useful addition to any professional studio, and the Voigtlander Heliar Reflex Camera is giving good service in many studios. If you are without one it will pay you to investigate.

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FOR THE AMATEUR.—The Berlin Aniline Works will present an order for one ounce of any of their well-known Agfa developing products, to the ten amateurs who will send the greatest number of words made up from the three words "Agfa Metol Contest." Replies to be sent to the Berlin Aniline Works, 213 Water Street, New York.

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BURKE & JAMES, of Chicago, have just issued a new list of photographic books, with titles of books on every photographic subject, from aerial to winter photography. It is a list that every photographer should have on hand, and from which he could select a few books once every little while and make himself a present.

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LENSMAKING.—The convention of the Photographers' Association of America, which is to be held July 19 to 24, at Rochester, N. Y., will be of great value to those in attendance, owing, among other reasons, to the opportunities which will be presented for becoming better acquainted with the production of studio equipment. Tuesday, July 20, has been set aside on the program as "Manufacturers' Day," and Tuseday morning as the time when photographers may be initiated into the mysteries of lensmaking as carried on by the most extensive optical establishment in the western hemisphere, the Bausch & Lomb Optical Co.

Realizing how unsatisfactory it would be to all concerned to attempt conducting such a large party over ten acres of floor space, where 1800 people produce more than fifteen distinct lines of instruments, this company has installed a model lensmaking plant on a floor of their large new building as yet unoccupied. Here every operation, from raw glass to tested lens, will be demonstrated and full information given to all interested.

What is more mystifying than the properties possessed by a modern Anastigmat? And how is it possible to endow a few pieces of glass with the power to produce results like those shown in a Bausch & Lomb Zeiss Portrait Unar negative? Surely, to be best qualified for the work, means being well acquainted with every phase, including a thorough knowledge of the tools used. At no other time and in no other place can this information on lenses be received in a way comparable to the opportunity afforded by this model plant.

The steps presented begin with the raw optical glass as received from Jena, Germany. Then comes the sawing into suitable blocks, chipping or grinding roughly to size, mounting for grinding, rough, medium, and fine grinding and polishing each side, edging, centering, mounting, and testing. We urge our readers to see these steps in manufacture.

Besides photographic lenses the Bausch & Lomb Optical Co. manufacture many other things of general interest and all of these will be displayed in commodious, decorated rooms. Search-light mirrors, microscopes, microtomes, laboratory apparatus of all kinds, range finders as supplied the U. S. Army and accurate within 1 per cent., gun sights for our navy, astronomical and engineering instruments will be on exhibition. In addition, in a model dark-room, a complete line of unique projection apparatus which is closely allied with photography will be demonstrated. The "Convertible Balopticon," remarkable for its universal application and especially for the projection of opaque objects, will be shown.

Luncheon will be served and visitors will be supplied with "Facts and Figures" relative to the Bausch & Lomb Optical Co.

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THE 29TH ANNUAL CONVENTION, P. A. OF A.—The place: Rochester, N. Y., the photographic manufacturing centre. The date: July 19 to 24, inclusive. An ideal time to leave your business for a few days. Come prepared to stay all week.

Do you know that this promises to be the most successful convention in the history of the P. A. of A.? Why? We meet this year in the most interesting city to photographers in the world. We will have the choicest collection of pictures, the most artistically arranged display, the most instructive school, the most interesting program with more new features added, and the best time the photographers have ever had the opportunity of enjoying at a convention.

The photographic interests of Rochester extend to you a hearty welcome and promise a week of entertainment and instructive sightseeing that will be a revelation to many. Do not miss it. The Rochester section of the P. P. S. of N. Y. will conduct a Bureau of Information in convention hall, with messenger service, to look after the wants of those attending.

Your officers would advise making hotel reservation early, and if any desire rooms other than those listed in circular sent out recently, a request stating what prices room youwish, to Mr. J. E. Nock, Rochester, N. Y., will secure for you just what is wanted.

It is important dues be paid and new memberships be issued early. Attend to it *now. To-day.* Your treasurer and his assistants will be busy at the convention, and if you wait until you reach the box-office you may have to stand in line sometime before you can secure a button and your receipt. This delay can be avoided and you can materially assist the treasurers by making remittance now. Official receipt and membership button will be sent to you by return mail.

If already a member, with dues paid for 1908, send $2.00 to treasurer L. A. Dozer, Bucyrus, Ohio. If you have no membership in the Association, send $5.00, $3.00 membership fee and $2.00 dues for year 1909. Employees and dealers, or their representatives, hold associate membership, $2.00 per annum, no membership fee. In making remittance by check, add ten cents for collection.

Any other information concerning the Photographers' Association of America or the coming Rochester convention will be gladly furnished upon request.

L. A. Dozer,
*Treasurer.*

# EDITOR'S TABLE.

Very Special. — Something for nothing — twenty-five dollars in gold. This sum will be paid to the photographer or dealer sending the nearest estimate of the paid membership of the 1909 Rochester Convention. Conventions of the P. A. of A. have varied from seven to twelve hundred members. All estimates must be received by July 17, 1909, and sent to G. W. Harris, Secretary, 1311 F. Street, N. W., Washington.

It's an equal chance for all. Make your guess now and mail it today.

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Professional Photographers' Society of New York, Metropolitan Section.—The officers elected for this section for the ensuing year are: Chairman, Pirie MacDonald; Secretary-Treasurer, F. W. Tyler; Executive Committee, B. J. Falk, Geo. G. Rockwood, B. F. Puffer, Pirie MacDonald, and F. W. Tyler. The report for the past year showed the section to be in excellent condition with a considerable increase in the treasury, an increased membership, and a bigger attendance at meetings.

F. W. Tyler,
*Secretary.*

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At a meeting of Metropolitan Section, No. 1, P. P. S. of N. Y., held June 1, 1909, the following resulution was unanimously adopted with the recommendation that a copy of the same be sent to every photographer in the Metropolitan District, to the chairmen of the different Sections of the State Society, and to the editors of photographic magazines.

*Whereas*, it is a matter of common knowledge that there are unscrupulous copyists, dealers, and publishers who not only make unauthorized copies of the work of photographers, but who have the effrontery besides to illegally mark them copyrighted, and

*Whereas*, it has also been charged that there are some photographers who mark their work "copyright" when same has not been copyrighted according to law; therefore, be it

*Resolved*, that Metropolitan Section, No. 1, P. P. S. of N. Y., hereby puts itself on record as condemning any such unlawful use of the copyright imprint, no matter by whom committed, and considers it a duty to assist as far as lies in its power in the strict enforcement of the law.

The penalty prescribed in the new copyright law (which goes into effect July 1) for the unlawful use of the copyright stamp reads as follows: "That any person who with fraudulent intent shall insert or impress any notice of copyright required by this act or words of the same import in or upon any uncopyrighted article; or with fraudulent intent shall remove or alter the copyright notice upon any article duly copyrighted shall be guilty of a misdemeanor punishable by a fine of not less than $100 nor more than $1000."—*Extract from Section* 29.

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Photographs from Big Balloons.—W. D. Boyce, publisher of the Chicago *Saturday Blade*, announces through that medium that his several million readers will experience a thrill of joy when they learn that he is arranging an expedition to Africa in their interests. Mr. Boyce is not only going to take with him to Africa the largest telephoto cameras made, but he is also going to take an assorted lot of balloons, and from these balloons high in the air he will take photographs of all the wild people in their native abodes, wild animals in their lairs, as well as dangerous mountain passes. We do not find any mention of an *x*-ray outfit, and we are wondering how Mr. Boyce will get the "native people in their abodes" without one, the most powerful telephoto cameras notstanding. Thrill on Mr. Boyce, and let joy unconfined!

The Late Rev. Edward Everett Hale

By Vander Weyde, New York

# WILSON'S PHOTOGRAPHIC MAGAZINE

FOUNDED IN 1864 BY EDWARD L. WILSON

VOL. XLVI AUGUST, 1909 No. 632

## THE PHOTOGRAPHERS' ASSOCIATION OF AMERICA.

### National Convention at Rochester, July 19 to 24, 1909.

THE twenty-ninth annual convention of the Photographers' Association of America will go down in history as one of the greatest, if not the greatest, convention the Association ever held.

The attendance broke all previous records; the picture display was unusually large and showed a higher average; the school of instruction was a pronounced success, and was crowded at every session by appreciative audiances.

It was to be expected that Rochester, the headquarters of all things photographic, would welcome the photographer, and expectations were more than filled. The hospitality and entertainment offered visiting photographers was on a magnificent scale. Never before have the photographers been so royally treated and made more welcome. The principal streets of the city were gaily decorated by day and illuminated by night, and the photographer, whether from Maine or Texas, was made to feel very much at home.

President Barrows wisely deferred the official opening until the second day, thus making sure of a big attendance when the real proceedings began. The first day was given over to the School of Photography, under Ryland Phillips, assisted by Frank Milton Somers and Will H. Towles. The afternoon was given over to the manufacturers and dealers, who had many interesting things to show.

In the evening an informal reception was held at the Hotel Seneca. Impromptu speeches were made, old friends met and new ones made, and the greatest good nature and fraternalism was displayed.

#### *Congress of Photography.*

The first meeting of this Congress was held in the Chamber of Commerce Building, on the afternoon of the first day, with President Barrows temporary Chairman. In broad terms Mr. Barrows explained the whys and wherefores of the Congress, what it represented, and what he hoped of it. He drew attention to the urgent need of united action between the National and State Associations. He said in effect that at this first meeting of a Congress of Photography his hopes went little beyond organization and suggestions for future action. The Congress will have to determine first of all whether a union of

the various Societies is timely and wanted. In the affirmative case, it will be in order to make such suggestions for the amendment of the P. A. of A. Constitution as will cover the case of State affiliation. Also certain other sections of the Constitution may, in the opinion of the representatives, need revision to bring it more in touch with modern affairs and the needs of the Association of today as compared with the Association of a decade or more ago. There are, then, plans to be made for the affiliation of the State and independent Societies with the National. This will require the most careful consideration. It was not his idea that each State should necessarily adopt the Constitution and By-laws of the National or of any other State. Rather he believes in each State Society working along its own lines and making its own plans for the inbringing of the photographers in this State, just as now, in this country's affairs, each State acts independently of others, but is represented in the Federation by its representatives in Congress, who pass laws for the general good. That, in his opinion, was the future mission of the Photographers' Association of America. It is to be a parent body fostering the general progress and acting toward individuals through the State Associations and lesser Societies. It is to lay the foundations, if in their opinion it is wise, of future united action. Its deliberations and suggestions are not necessarily binding, but being the result of the best thought of the best men in each State and of the former leaders of the National, it is not inconceivable that what they consider to be good and advisable will be endorsed by the larger bodies—the National and State Associations.

F. R. Barrows was made permanent chairman of the Congress, and G. W. Harris, permanent secretary.

A committee on Constitution and By-laws was appointed at the meeting of Congress, the following gentlemen serving: C. L. Lewis, H. E. Bliss, C. M. Hayes, L. F. Hammer, J. F. Jackson.

### First Session.—Tuesday, a.m.

The Convention was called to order at nine o'clock by President Barrows, in the large assembly room of the Hotel Seneca, the attendance at the opening being unusually large. The Mayor of Rochester and the President of the Chamber of Commerce made speeches of welcome, which were responded to by Chas. L. Lewis, of Toledo, in his usual happy vein. President Barrows then read the annual report as follows:

*Brother and Sister Photographers:*

For so many years have you honored me with a seat on your Executive Board, and for so many years have I had the pleasure of greeting you at our Conventions, that I feel as if we were now one large family. And, in truth, we are in many ways like one large family. Growing up year by year, we, the children, often drift apart in our ideas and beliefs, but whatever our aim, we all still hold to our parent, the grand old P. A. of A.

Like a family, as we, the children, grow older, we think we are even wiser than our parent, and sometimes are apt to class her as old-fashioned and not up to date, and we seek means whereby to change her attitudes so that we, poor foolish children, need not feel that shame that we falsely assume when we parade under her wing.

Yes, we are, indeed, but brothers and sisters after all.

Associations such as this, which usually find outward expression in Annual Conventions, are of two kinds, or rather are formed to serve one of two purposes, protective and educative.

The old N. A. P., the predecessor of this Association, was originally protective, formed by photographers to fight obnoxious patent laws and rights. The P. A. of A. was formed, after the lapse of the old society, to carry on the work of education, combined with the spirit of brotherhood. That the P. A. of A. has been led right, or, at least, has not been led wrong, is shown by the steady onward progress as recorded by the history of the Society. Some twenty years back the P. A. of A. was stronger than when first started. Ten years ago it was again stronger in membership and financial resources than it was in the previous decade, and today, nearly thirty years after its foundation, the P. A. of A. shows us the largest gathering of photographers and manufacturers that has ever assembled since the day Daguerre first iodized a silver plate and made the first permanent photograph.

As old-fashioned as some of we children imagine the P. A. of A. to be, it still has the vitality that bids fair to outlive us and our works as it has already outlived many another good photographer.

But let me return to the family simile and carry it a little farther. In its younger days the P. A. of A. stood alone. As its children grew older and wandered afield, they, too, reared families of their own. Some prospered, for they were founded on good fellowship and mutual helpfulness. Some were unfortunate and, while yet alive, led but a dragging existence. The younger children, profiting by the mistakes and failures of their elders, founded families on new lines, and their more youthful energy and more modern viewpoint has led them to success where some of the older families have reaped disappointment.

But while there has been friendship, there has been no union of these various family groups. Each individual family has gone its own way. What the one has found good has been condemned by another. There has been an interchange of ideas and courtesy, but the mutual helpfulness, the spirit of "one for all and all for one" has been lacking. While each family was working for its own good, the progress of the whole united family has been unheeded. Yet, in each family there have been members that have thought and reasoned seriously. They believed sincerely in their own families, but they believed, too, that the times demand a real family re-union, making for a stronger family, one that would have such influence and power that the progress and welfare of each individual family member would be enhanced to a degree not attainable with the limited power of the smaller isolated family. Louder and louder became such expressions of belief that a re-union of the whole family seems expedient. And who has greater right to bring about such a re-union, than the parent of them all, the P. A. of A.?

As the spokesman of the older organization for this year, it is not assuming too much for me to harken to these voices or demands and to do what lies in my power to bring about this joining of interests and, at the same time, open up a larger sphere of usefulness for the P. A. of A. With this end in view, I have devoted much time and consideration and have finally called upon all the State Societies to appoint delegates to represent them at a meeting held here for the purpose of discussing this matter and formulating some plan by which the National and State Societies can work harmoniously together for the general future welfare and good of American Photography and American Photographers.

I have termed this meeting of representatives the Congress of Photography,

and if it can show us how to accomplish the desired end, I shall feel that my year of office as your leader has not been without avail.

In the Association Annual for this year I have set forth a few of the many matters which this Congress can well take under consideration. In suggesting them, however, I do not wish or propose to hamper the Congress in any way. My position is an entirely impersonal one, desiring only to take part as an individual member, working with the other representatives for the good of the whole.

It is for the members of the Congress to say what it shall consider. One thing I would mention, however, as being well within their scope, and that is the consideration of the Constitution of the P. A. of A. It has been frequently suggested that our Constitution is cumbersome and not in line with the needs of our Association as it is today. For instance, Section 3, Article II, regarding the payment of dues by manufacturers and dealers, seems incomplete. It appears, too, that we are not in order when we offer prizes in competition among the dealers and manufacturers. It has been suggested, even, that under our rules the past presidents, on becoming honorary life members, are no longer eligible to vote on any question. Under Article IV we have a Board of Trustees. Their duties are undefined; their existence seems purposeless. It might be well, too, to limit all voting power to professional photographers, owners or part owners of studios.

Further, if any action is taken, looking to a union between the National and the State Societies, our Constitution will have to be amended to include such relations.

I have talked at this length on this Congress of Photography, because it is in my opinion the most important move that has been made by this Association since the year of its foundation.

For the rest, this week has much of novelty and instruction. Following up the successful school of last year, we have this year gone a little more elaborately into the school proposition and have so arranged details that all the members may attend all the demonstrations. A studio has been constructed in which all may follow the movements of the demonstrators, and instructors themselves have been chosen, not so much with regard to their National standing, but more with respect to their ability as teachers of methods applicable to your every-day work.

I want also to extend the sincere thanks of my fellow officials and myself to the members of the P. A. of A., who in endless numbers have in one way or another assisted us during the year to make this a successful meeting and also to the manufacturers and dealers who have so generously responded to all the calls made upon them.

We are indebted, too, to the Rochester Chamber of Commerce, representing the city of Rochester, which has been liberal in its help to this Association meeting.

And now, in placing this meeting in your hands, remember once more that we are all members of one large family; that we owe a duty to each other in the way of brotherly love and mutual helpfulness. I thank you.

The secretary read several letters of regret, and the president then announced the following committees:

*On the Progress of Photography:*

W. H. Rau, of Philadelphia, Pa.
W. H. Koehne, of Chicago, Ill.
G. Parrott, of Fort Wayne, Ind.
W. F. Oliver, of Baldwinsville, Mass.

*On Resolutions:*

Chas. Wesley Hearn, of Boston, Mass.
H. B. Medlar, of Woodstock, Ill.
E. E. Seavy, of Newcastle, Pa.

The Committee on the Academy of Photography, consisting of Charles W. Hearn, G. W. Harris and Al. Holden, was asked to report. Also the Membership Committee, appointed at Niagara Falls, which was to consider some plan of recognizing continued membership in the National.

Past Presidents Van Deventer, Core, Medlar, Hastings and Hearn were on the platform supporting President Barrows. The evening meeting for the discussion of the Constitution was announced, and the meeting then adjourned.

SECOND SESSION.—TUESDAY, P.M.

President Barrows: We all understand that we are here again tonight to continue our threshing bee on the Constitution. Passing upon it through the delegate body, the Congress of Photography, we have their recommendation which passes it to us now for consideration this evening as an open body, and Mr. Lewis was named as the man to present that matter to you here this evening, and I have the pleasure again of introducing our good friend, Mr. Lewis.

Mr. Holden: I move you that we now go into Executive Session for the purpose of consideration of the matter that Mr. Lewis is to present to us.

Mr. Bandtel: I second the motion. Carried.

Mr. Lewis: In coming before you tonight I am not here as a committeeman as I served this afternoon, but simply as the mouthpiece of the Congress, but I have been asked to read our presentation of the report.

*To President Barrows.*

*Dear Sir:* Your Committee beg to report that we have carefully considered the proposed changes of the Constitution of the P. A. of A. for which this Committee was appointed, pertaining to the establishemnt of a Congress of Photography, to consist of representatives of the State Associations at the National Convention, the purpose being an affiliation of the State and National Associations for all mutual interests and the upbuilding of a closer union of the members of all organizations.

We herewith recommend that the Congress thoroughly digest the matter in open meeting, with a view of reporting to their State Associations the advisability of establishing such a brotherhood.

To your Committee has been submitted certain amendments of the Constitution and By-laws, which we herewith submit for your consideration.

Having thoroughly examined them, we believe them, in the main, to be correct and worthy of your earnest consideration. We respectfully recommend that each delegate secure for himself a copy of these amendments to the Constitution and By-laws, as suggested, and with a view of presenting them to their State organizations, when printed in the photographic journals, urging them to strengthen their State societes by affiliating with this movement; to investigate, and in so far as possible to adopt the sectional idea which has proved so successful in New York, and believing that the sectional plan is the logical foundation of all State organizations, and we further recommend that the permanent organization of this Congress be effected at the next National Convention, believing that time should be given all delegates to thoroughly acquaint themselves with the plan and scope herewith outlined.

Respectfully submitted,

C. L. LEWIS, Chairman,
HARRY A. BLISS,
L. HAMMER, JR.,
C. M. HAYES,
J. FRANK JACKSON,
Committee.

## Proposed Constitution.

### PREAMBLE.

The objects and purposes of the Society shall be the betterment of the profession, the creating, fostering and maintaining of cordial relations between the members of the State organizations and the Photographers' Association of America, and to oppose any injustice or infringement of the rights of photographers.

Article I. The official title of this Association is The Photographers' Association of America and jurisdiction thereunto belonging.

Article II. Titles of Officers. Sec. 1. The officers, the official titles:

President.
First Vice-President.
Second Vice-President.
Treasurer.
Secretary.

Article III. Constituents of the Association.

The membership of the Association shall be of three kinds, honorary, active, and associate.

Sec. 1. Every active member of this association shall be either a member of a regular organized State Association in good standing, the owner or manager of a studio, or such photographers, owners, or part owners as may pay the initiation fee and annual dues called for.

Article IV. Dues. Sec. 1. Any photographer, owner, or part owner of a studio, not a member of a State Association shall pay a fee of three dollars, and two dollars yearly dues, but for a member of a State Association the membership fee shall be omitted, and only a yearly fee of two dollars shall be charged.

Sec. 2. Past Presidents of the P. A. of A. will at all times be recognized as delegates to represent the Photographers' Association of America.

Sec. 3. Members classified as honorary, or those given special membership privileges, shall not have the right to vote.

Sec. 4. Life members, past presidents, shall have the right to vote on all questions.

Sec. 5. All State Associations shall preserve the right of self-government in all questions except that covering fees, which go to support the National Association, and the number of delegates to be appointed, or elected, to represent them.

Sec. 6. A per capita tax of twenty five cents each from State member shall be paid into the Treasury of the National Association annually.

Sec. 7. The annual dues shall be paid on January 1, of each year; members being in arrears for two years' dues shall be notified by the treasurer, and on failure to pay such indebtedness before the close of the next annual meeting, shall be suspended for nonpayment thereof.

Associate Members. Sec. 1. (*a*) Associate members shall include employees, manufacturers, dealers and their representatives, and shall enjoy all privileges of the Association excepting that of voting and speaking on the floor of the convention during stated business sessions. The annual dues of associate members shall be $2.00 without membership fee.

Sec 2. Each State Association within the boundaries of America shall at the time at which its officers are chosen elect one representative for each fifty or less members who shall serve until his or their successors are elected. The certificate of his election shall be signed by the President and have the seal of the State Association attached, at-

tested by the Secretary, and a duplicate thereof shall be sent to the Secretary of the P. A. of A. at least six days before the annual meeting at which it is proposed to use the same, unless said representative shall have been elected within six days, in which case the duplicate certificate of his election shall be sent to the National Secretary immediately.

The duties of the representative shall be to assist the president of the P. A. of A. and other officers, prepare out of the subject matter which may be brought forward during the year in the State Association, and what may be fit subject matter for legislation in the National body, and to advise on matters of interest and for the purpose of expediting the business of the Constitution.

Sec. 4. Any special committee charged with the disbursement of moneys of the P. A. of A. shall be considered as existing until its accounts have been examined by a committee on finance and the National Treasurer and all the debts contracted by it are shown to have been paid, when, on motion, said committee may be discharged.

Sec. 5. All propositions to amend the Constitution or to determine questions of finance in which the State Associations have an interest shall only be acted upon at the annual meeting.

Article VI. Sec. 1. The Constitution may be altered or amended by a vote of three-fourths of the members present, providing all the State Associations have been notified that such change was desirable and a vote taken thereon at least one month prior to the annual meeting of the Association.

(At this point I read from the original By-Laws; the next section is:)

BY-LAWS.

Article I. Meetings. Sec. 1. The annual meetings shall be held at such time and place as may be determined upon by the Association.

Sec. 2. Special meetings of the Association may be called by the President, with the advice and consent of the Executive Committee, whenever deemed expedient.

Article II. Quorum. Twenty-five members shall constitute a quorum for the transaction of business of the Association.

Article III. Order of business. Sec. 1. Calling the meeting to order.

Sec. 2. Calling the roll of members.

Sec. 3. Reading Minutes of last meeting.

Sec. 4. Reports of special and standing committees, which shall be read by their titles or in full. (Then we pass to our new By-laws again.)

Sec. 5. Selection of location for next convention shall be by ballot previously prepared and issued to the members on the day previous to election, and said ballots shall be deposited in a regularly provided receptacle in charge of a competent committee, and the city or town receiving the highest number of votes shall be declared the choice of the Convention, which shall be stated by the President at the next session of the Convention.

Sec. 6. A Committee to nominate officers for the ensuing term shall be appointed, or elected, at the opening of the proceedings of second day of the Convention, who shall report before the close of the same session, when the President shall have regular ballots provided with the names of the regular nominees printed thereon and with special blank spaces provided for the insertion of any other choice. These shall be in charge of a regularly appointed committee on election, who shall distribute them only to members in good standing at the time and place appointed in the Convention Hall for the election to be held, and said elec-

tion shall be open for two hours, and a list of members in good standing and entitled to vote, shall keep a tally of those voting, and this committee shall act as tellers and announce the result of the ballot before closing the session at which the election is held.

President Barrows: We will now take it up clause by clause, and if there is no reason to discuss it we will pass it. If there is a point not understood by any member, it is an opportunity to take it up, and the time set is not over two minutes to the man. This discussion will have no bearing on the Constitution whatever, and it is merely an informal discussion to get a better understanding of the new proposed amendments, that is all. Mr. Lewis will now read the sections, and do not interrupt him unless it is a matter on which you want information.

The proposed constitution was then read through section by section and discussed, and the meeting adjourned at 10.45 A.M.

### Wednesday.

The third day of the Convention was devoted entirely to the manufacturers and dealers. The morning was devoted to a visit to the Bausch & Lomb Optical Works. The whole ground floor of one of the large, new buildings had been fitted up as a complete lens factory, every process in the making of a high-grade anastigmat, from the sawing up of the crude Jena glass to mounting and testing, was shown in actual operation and proved highly interesting to the visitors. There was also on exhibition all kinds of fine measuring and testing instruments, demonstrating to photographers the fact that the photographic lens receives more care and exact consideration in its manufacture than any other instrument of precision.

Souvenirs and refreshments were freely supplied, an excellent musical program was rendered, and an altogether enjoyable time was spent by the 1500 visitors who availed themselves of the opportunity.

From the Bausch & Lomb factory the photographers went on to Kodak Park by chartered cars, where the Eastman Kodak Company had made great preparations for their entertainment. An elaborate lunch was served in marquees on the beautiful lawns of Kodak Park, a full military band contributing to the general festivity. Mr. George Eastman, ably assisted by the heads of departments, moved in and out among the huge crowd and saw that all wants were well supplied.

After the lunch had been thoroughly discussed the visitors were conducted through most of the interesting buildings that go to make up the most wonderful and complete photographic plant in existence. The magnitude of the plant and its enormous capacity were the things most commented upon by the visitors. A good lesson the visiting photographers might learn from this splendidly operated plant is that the utmost cleanliness and care is observed in every photographic operation.

Before leaving, every visitor was presented with a handsomely printed and beautifully gotten-up souvenir book, describing and illustrating the various Eastman factories which have made Rochester the City Photographic.

### Wednesday Evening.

The assembly hall at the Hotel Seneca was crowded to its capacity for Ryland Phillips' lantern lecture, "With Other Photographers," and showing the individual methods of our most prominent workers, the lantern slides showing first how the lighting was made; secondly,

the untouched negative; and lastly, the finished and mounted print. This is an unusually interesting and practical lecture, and was closely followed by the large audience.

Following Mr. Phillips—though we are unable to understand why the rule of "ladies first" was not followed—Mrs. Gertrude Kasebier, of New York, gave a most interesting talk on "Not Always My Way," using a set of slides which she made from her own negatives. Mrs. Kasebier criticised the work and explained the why and wherefore of many differences in her work from the average professional point of view. Mrs. Kasebier has a keen sense of humor, and delighted the huge audiance for over an hour under somewhat trying conditions.

### Thursday Morning.

At the business meeting, held at the Seneca, committees on nominations and convention site were appointed.

The revision of the constitution and by-laws, proposed by the Congress of Photography was to have been taken up at this session, but the committee not being ready to report, the discussion was deferred. Secretary Harris read his report, and Treasurer Dozer read his report, showing a total receipt of $10,610 and an expenditure of $5911, leaving a balance of $4698 on hand, January 1, 1909. Both reports were accepted. The meeting then adjourned.

The School of Instruction had another big day, the hall being crowded at both sessions. The demonstrator in the morning was E. B. Core, of New York, assisted by Frank Scott Clark. At the afternoon session A. F. Bradley, of New York, demonstrated his method.

On Thursday evening the Eastman Kodak Company entertained what was probably the greatest number of professional photographers ever gathered under one roof. Their genius for system and good management was never better displayed. Notwithstanding the wet weather, every man, woman, and child connected with the Convention rode out to Ontario Beach, a pleasure park facing Lake Ontario. It is estimated that twenty-five hundred people sat down to dinner and at one sitting. After justice had been done to an excellent and well-served repast, Mr. George Eastman was prevailed upon to make a speech. Judging by the enthusiasm with which he was received he is easily the most popular man in the photographic field today.

During the dinner President Barrows was presented with a handsome gold watch and fob by the members of the Association as a token of their appreciation of his services on their behalf. After the dinner the crowd spread itself through the various side shows and entertainments provided, and enjoyed itself in a very thorough manner until a late hour. The greatest good feeling and camaraderie prevailed and everyone went home with the feeling that they had had the greatest time they ever had. The Eastman Company is to be congratulated on the splendid management of such a huge undertaking.

### Friday Morning.

This session was devoted to the election of officers and the selection of the next meeting place.

The officers recommended by the nominating committee were: for President, A. T. Proctor, Huntington, W. Va. First Vice, G. W. Harris, Washington, D.C. Second Vice, B. Larrimer, Marion, Ind. Secretary, J. H. C. Evanoff, Salem, Mass. No other names being submitted, the secretary was instructed to cast one ballot for each officer, thus making the

election unanimous. Mr. L. A. Dozer, of Bucyrus, Ohio, will retain the treasurership for the next two years to complete his term.

In selecting the meeting place for 1910, Milwaukee, Wis., was the only city seriously considered, and very few minutes were taken to decide to hold the next year's convention there. Atlantic City was boomed by its publicity agent and one of our contemporaries, but failed to secure any popular support.

At this session Past-President Frank W. Medlar was presented with a Life Membership Certificate. The presentation was made by Past-President Hearn in a few well-chosen remarks.

There was one session only of the School of Instruction, the demonstration being given by Will H. Towles, of Washington, D. C., before a large and appreciative class.

### Afternoon Session.

The proposed Constitution and By-Laws recommended by the Congress of Photography, printed in full in the report of the second session of Tuesday, was, after a few minor corrections had been made, adopted by a unanimous vote. The only addition of any importance to the new Constitution, that was not incorporated in the recommendations of the Congress of Photography is a clause making it possible for editors of bona fide professional photographic magazines to become active members of the Association with all privileges of membership on payment of dues. Hitherto they have attended on the invitation of the President.

On Friday afternoon the members of the Association were the guests of the Defender Photo Supply Co. and the Seneca Camera Co. at a German Roastfest held at Moerlbach Park. Refreshments were provided on a liberal scale. A good band was in attendance and added greatly to the enjoyment of the big crowd that accepted the invitation.

In the evening the out-of-town manufacturers gave a ball in the ball-room of the Hotel Seneca, tastefully decorated for the occasion. Dancing was kept up until a late hour, and was greatly enjoyed by all present. For the non-dancers a vocal and instrumental concert had been provided, and the band of the Fifty-fourth Regiment, stationed in the rotunda of the hotel, added greatly to the general gaiety.

### Saturday, A.M.

The final sesion was devoted to a grand resume of the work of the School of Instruction. All the negatives made at the various demonstrations were shown on the screen. First a slide of the negative as made, then a slide from the finished photograph embodying the ideas of the individual demonstrator.

The hundred dollar prize for the best device or piece of apparatus brought forward no fewer than twenty-seven competitors. The prize was easily carried off by J. A. Meiser, of Eureka, Cal., for a very ingenious combination of finder and shutter, converting the ordinary studio camera into a reflecting camera and enabling the operator to see his subject on the ground glass until the moment of exposure.

This concluded the week's program and the convention adjourned until 1910.

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*Obstinate Dark Slides.*—Shutters of dark slides which have a nasty habit of sticking may be made to work quite easily, we are told by the *Wiener Mittheilungen*, by rubbing the grooved parts well with a soft lead pencil, or with talc. Oil or grease of any kind must, of course, never be used.

## SOME CONVENTION PICTURES.

BY A PICTURE MAKER.

WITH such an unusually large collection it is very hard, even with the assistance of the catalogue, to find pictures by certain well-known artists, and conscientiously to give attention to other exhibits, to see whether there are not other pictures buried somewhere, liable not to be noticed, which should also receive attention. To our mind, *more attention* should be given to find *new* and *rising* artists, our possible future great men, than to merely content ourselves in describing the pictures of those whose marvellous work is so well known to our readers.

In this brief review, when we consider the magnitude of the task, we have *purposely omitted* the leading pictures of the New England men, for as the New England Association hold their convention in two weeks, all of their pictures are sure to be seen there, and as it is our intention to review that convention and its pictures, the comment as to this work is deferred to our next issue. So, with the remark that this class of exhibits compares equally with the rest of those exhibited at Rochester, and with a feeling that something of importance may have skipped us that should not have been overlooked, for which we ask your consideration, we will pass on to our review.

The Canadian exhibit, as a whole, is of a much higher average than has been sent in the past. New men have been brought out in their collection, which received much favorable comment. The pictures from their best-known artists, who contributed for some years back, show not only the maintenance of their standard, but in some instances advancement. Without commenting as to individuals, their leaders of former years still retain their position. We note the absence of a few names whose work in their own conventions of recent date has been such as to cause regret that they did not exhibit this year at the P. A. of A.

Lewis, Toledo, Ohio. Six pictures. Fine. One or two a little crowded as to space, but decorative. The collection as a whole shows that the exhibitor is not a man with only *one idea*, but is able, from year to year, to create new stuff, and make good.

Porter, Youngstown, Ohio. Three pictures. Low tone. Show maintenance of standard, but badly located and lighted and hard to find.

Brenner, Cincinnati, Ohio. Two pictures. Low tones. Different from former style of working; successful; the home portrait of little girl especially pleasing. Suffers also from location as to position and lighting.

Lively of Tennessee. Former standard of work highly advanced; the man's picture being the best he has ever exhibited, and easily one of the principal pictures in the Convention.

Kent, Rochester, N. Y. Exhibition of two of his twenty pictures of very large plates, made with the wet plate and albumin paper process of printing, and exhibited at the Centennial exhibition in Philadelphia in 1876, the group being in low tone and similar to the method of work today. Composition well thought out, and silhouettes surprisingly well taken care of.

Sperry, Toledo, Ohio. Six pictures of regular studio work, of children. The little girl especially noticeable and pleasing in its simplicity. The face

of the child attracts, and the white dress does *not* detract from it, yet values are preserved.

Miss Mary McGarvey, of Bellefonte, Pa., has a very attractive picture in her collection deserving of this special attention. Buried among a lot of other pictures, but when found, received much praise from some of our best men. It is of a little boy, profile and three-quarter figure, standing, and with white ground. Its sentiment, composition, and harmonious blending of lights and darks and simplicity mark it for much credit. It will be interesting to watch her progress.

R. W. Johnston, Pittsburg. The chief picture is a most beautiful lady, well posed and lighted.

Miss Mary Carnell, of Philadelphia, in her collection has one picture—lady with curl—which, while not over well spaced in the oval, is very charming.

Moon, of Arizona, has six pictures of Indians, bust and figure, which deserve especial attention as being good work, of unusual subjects.

Hayes, Detroit. Three pictures of lady subjects, noticeable as well illustrative of the excellence of his well-known high technique and posing, and also interesting in showing possible results obtainable in working-in grounds upon the foundation of rather light grounds used in the raw negative. The range of contrast obtainable in such cases is, of necessity, very limited, and received extra attention on this account. With one or two slight changes, as to prominence as to the sky line, where it stops, it seems to be the consensus of opinion that this much-mooted question is possible of favorable solution. Whether it will be taken up by other leaders, and the picture of the future be made on these lines is still a question, since Mr. Hayes has, by his work, opened the question.

Doty, of Michigan. We think Mr. Doty has shown too many pictures, and at a very important convention has shown work that he has not thought over long enough. We refer only, however, to several of his largest pictures. He should have shown only one of the smallest, which is easily one of the best pictures in this convention. Mr. Doty is young yet, and new as an exhibitor, and we hope he will broaden out and show more versatility in his work, which thus far is confined only to one thing, and although he unquestionably does this so finely as to justly draw the attention of the whole country by his success, it is most important for his future that he should study this problem.

A. T. Proctor, West Virginia. Eight pictures; worked-in grounds of ladies, children, and a Lincoln type of man. Low tones and good. Highly creditable work for a hard-worked officer to get time to set up and exhibit.

Clark, Detroit. Six pictures of lady subjects. The lowest tones in grounds indicate that a plain background in the raw negative was used. These backgrounds, as worked, are exceedingly pictorial. In two instances it is possible that the light spots with sharp silhouettes rival interest with the figure. The chief picture, we think, is a full figure, sitting, of lady without hat with decolleté gown. It has well-balanced lines, is well spotted into lights and darks, with massing good as to values, etc., with beautifully handled silhouettes and drapery. The dark spot between arm and dress is too insistent. One of the most attractive parts of the picture is the handling of the foreground and lower part of the dress. There are fully five values of white out of a possible nine indicated in this and another picture—an unusually high number. These pictures besides, ranking high pictorially, are also highly salable.

Thuss Brothers, Nashville. One picture, and diamond trophy winner,

Indiana, 1909. Carbon, about 10 x 8 inches, of mother and child; dark and worked-in ground. Received much attention and discussion. The worked-in ground is of an unusually high standard as to execution value, with spotting good as to masses, shape and size, and proportion of spots to each other, and with one exception as to placement, the exception being the bringing of the horizon line too near to a level with the heads. Tonality in the picture, while fairly well obtained, is, down at the child's feet, sacrificed by reduction, probably with red prussiate, since flatness results with loss of solidity. Low tones on the human figure should always be done with the view of preserving solidity to some extent anyhow. There are bones under the flesh. Mere outline as to shape is not altogether sufficient. The roundness of the body of the mother should have been continued throughout both figures to its deepest shadow, of course with observance to the fact that as strength of light declines, it also loses the same in proportion. The parallel lines of the mother's arm and the line of the back of the child down to her feet are too nearly parallel. On the whole, this is a most ambitious effort, and exceedingly hard to tackle, and congratulations are surely due for many points of beauty and artistic results obtained, even if there are some things that we wish were a little different.

E. B. Core, New York. Two passe-partouts containing six pictures. Very beautiful, the three home portraits exceedingly charming.

Mock, Rochester, N. Y. Decided advancement is noted in his work every year; this year's pictures the best he has ever made; some of these are among the finest in the Convention.

Mrs. G. Kasebier, of New York. Six portraits, divers subjects in passe-partouts. Most varied and interesting; always attracted crowds; very highly commended, and strong in composition. Unconventional in her work, *not* freaky, and easily a leader among leaders.

Beach, Buffalo. His fine work tastily framed in leather frames.

Lifshey, Brooklyn, maintains high standard and reputation for versatility in his work.

Hoyt, New York. His collection of five pictures, we think, are, as a whole, his best exhibit ever made, and one of the chief exhibits in the Convention. Wonderful resemblance to the finest of engravings. We note that Mr. Hoyt is softening down the strong light in his faces, and we think at no loss of concentration of interest. There were always crowds of people gathered about his pictures.

Goldensky, Philadelphia. Each of his pictures is different from every other, yet the collection as a whole is most effective. Printed in a different medium, what it was no one was certain. While each possessed great interest on account of its particular style and effect, well rendered and instructive, his group of four with its cross lighting is a wonderful picture, in sentiment, posing, lighting, in fact, so far as we could see, in everything that tends to the pictorial, and caused greatest attention and study by the members.

Knaffl, Jos., Knoxville. Besides the usual white grounds of his studies, which are always so much admired, his new picture, "The Lost Chord," of a lady playing an organ, looking up for inspiration, and one of his very best, is most interesting as being with dark background, partly worked in, showing that he has made a success here, as with "The Prophets," which came out in 1903.

Anschutz, of Iowa. This picture, 16 x 20 or larger, of a lady, three-quarter figure, seated, was a close competitor for the recent diamond trophy at Indiana. Very quiet and very fine. If the high

lights on face and shoulder had been lower in tone, its chance would unquestionably have been better.

Bradley, New York. Two collections different each in style from the other. Bradley-esque and fine.

Holden, Philadelphia. Six pictures, different in style and pleasing. The 11 x 14 of lady, and the beautiful effect of water and sky, with figures in another being the better. The latter very strong in composition and cloud effects.

Edmondson, Cleveland, Ohio. A very fine collection. The two house portraits, one of two ladies and the other of mother and two children, are among the gems of the convention.

Baird, Pittsburg, Pa. Photographs similar to pen and ink sketches. The one of a baby looking into mirror, another gem.

Wilson and Kelley, Palo Alto, California. One of sand dunes especially noticeable.

J. A. Meiser, of Eureka, Cal. Interesting effects of clouds, and sun showing through trees.

Strauss, St. Louis. Large and effective framing of a collection of six pictures of usual standard, the one of a man being an unusually strong piece even for Strauss.

Lenney, of Atlanta. Fine collection.

Will H. Stephenson, of Atlanta. Six fine pictures, one of a group, printed in frame designs, low in tones, effective, but rather too much so.

## HOW TO PROCURE COPYRIGHT PROTECTION.

It is a perfectly simple matter to secure a copyright on any original picture provided the law is understood.

If you are the author or owner of a photograph, you can obtain protection against the use of the photograph by unauthorized people, newspapers, magazines, etc., by making proper application for a copyright to the Librarian of Congress, submitting at the same time, or as soon as the pictures are ready, *two* copies of the picture or photograph.

Regular printed forms can be obtained without cost, by addressing the Librarian of Congress. The title of the photograph should be printed or typewritten (not written by hand) on the space provided in the application form, and full data regarding authorship, etc., must be supplied.

This application, together with the registration fee of fifty cents, should be sent to the Librarian of Congress as early as possible, together with the two copies of the photograph. A card will be received in a few days notifying you of the receipt of application, etc., but this is *not* a notice of registration of the copyright. That notice will come in ten days or two weeks. The registration notice is *not* a certificate, and will be useless in case of a lawsuit. Then you will require a certificate which you can obtain at any time from the Librarian by asking for same and remitting fifty cents fee. The copyright holds good for twenty-eight years, and can be renewed for twenty-eight years more. To protect your rights it is essential that on the face of every copy you make or sell of this photograph you either print, write, or impress a circle, with the letter C within, and underneath the same your initials, monogram, or some particular symbol. Then on the back of the photograph, on the margin of the mount, or on the mount beneath the photograph, *must* appear your name.

Under the new law no date is necessary, nor is there any prescribed form other than the circle and the letter C, or the word Copyright or Copr. on the picture itself, and your name on some part of the picture or mount. Marking a photograph as copyrighted when no application has been made or intended to be made within a short, prescribed time, is unlawful and subject to a $100 fine. Heavy damages can be obtained for the unauthorized use of a copyright picture. With newspapers, however, the maximum fine is $200 and the minimum $50. In granting permission to publishers, etc., to use a picture copyrighted by you, it is wise to specify clearly, on a printed or typewritten form, the maximum size the picture is to be reproduced, the date of reproduction, the particular book or publication in which reproduction is to appear, and the payment to be made therefor, together with the credit wording to be placed under the picture. If these conditions are accepted in writing by the publisher, etc., and not adhered to, you have just cause for a suit for damages. If you are in the habit of supplying newspapers or magazines with photographs of well-known people, etc., it is always a wise plan to have the photographs copyrighted and to issue a printed form with each one sent out. In case of a hurry, the photograph can be marked "Copyright," etc., and delivered, the copyright application being sent by mail to Washington the same day. While the unintentional omission of the copyright notice from one copy will not invalidate your copyright, you cannot claim damages from any one who may have made reproductions from that one picture, not knowing that it was copyrighted. Neither can you claim damages for reproductions made from a picture sent out prior to application for a copyright thereon. If interested in copyrighting photographs, it is a wise plan to join the Photographers' Copyright League, of which Mr. A. H. Strohmeyer, of the firm Underwood & Underwood, Fifth Ave., New York, is the Secretary. The expense is small and the benefits in the way of advice and assistance are great.—*Association Annual.*

## A PHOTOGRAPHER OF CELEBRITIES.

W. M. Van der Weyde is the journalist photographer *par excellence.* He is ready to photograph any person or object of interest. He does not care very much what or who it is, as long as it has some illustrative value. One day he may be sent out to discover a picturesque bit of Long Island, the next day he may climb the tower of the new East River bridge, and at the risk of his life take a new bird's-eye view, while the following day may see him busy at Pittsburg trying to secure a pictorial delineation of the glowing furnaces, smoke, and chimney stacks of one of the big mills.

He devotes a good deal of his time to portraiture, but he has no studio, and seldom fills orders for ordinary portraiture. He is in reach of celebrities. Every man and woman of note will sooner or later pass in review before his camera. Looking over his hundreds of portraits, one begins to doubt whether it is really such a great thing to be a celebrity, even if one's self is included among these soldiers of fame.

They are all done in a reportorial manner, straightforward, slightly artistic, commonplace at times, but always to the point; they give us a journalistic

impression of the person represented. He strives for good composition, but circumstances do not always allow it; he has to make his pictures whenever he has the chance, no matter how bad the light or inadequate the surroundings may be. He has to get the likeness, that is the principal thing. It is worth five dollars and at times up to two hundred and fifty, as was the case with his Chauncey Depew, which was bought for advertising purposes.

The peculiar conditions under which he is obliged to make his pictures gives his figures something angular and crudely realistic. His "Everett Hale" is not short of being a masterpiece. Others are more indifferent, pictorially speaking. But they are always to the point, and mostly excellent character delineations.

Van der Weyde is a true cosmopolitan. He is a direct descendant from the famous Dutch painter Roger van der Weyde, and was born in Uruguay. His father was one of the first professionals in this country. Young Van der Weyde started as a reporter, then suddenly, ten years ago, without serving any apprenticeship whatever, he became a photographic reporter and has made it a successful profession. He has photographed one time or another nearly every object under the sun. He does not balk at any thing, and no obstacles are too big that he could not overcome them. But he is particularly fond of two subjects, celebrities and the night.

His night photographs belong to the best pictures I have seen of the kind. He has discovered for us a new beauty in the weird glare and glamour of nocturnal illuminations of metropolitan thoroughfares, railway scenes, and panoramic city views.

SADAKICHI HARTMANN.

## METHODS AND FORMULÆ.

*A Yellow Light Filter.* An unexposed plate, preferably a lantern plate, is fixed out in clean hypo, washed, and dried. It is then soaked for two minutes in

| | |
|---|---|
| Naphthol yellow . . . . . | 5 grains |
| Water . . . . . | 10 ounces |

The plate is then rinsed in water until of the tint desired, dried, and bound up like a lantern slide.

The negative is then washed and dried. The intensification with this formula is very great.

*Substitute for Ground Glass.* A clean piece of plain glass may be substituted for the ground glass focussing screen by pouring over it

| | |
|---|---|
| White wax . . . . . | 100 grains |
| Ether . . . . . | 1 ounce |

The gold is dissolved in the water, which is then heated to 100° F., and the strontium added. The mixture is then heated just short of boiling, and fifty grains of potassium sulphocyanide, dissolved in two ounces of water and similarly heated, are mixed with it. When cold the solution is filtered into a clean stoppered bottle, a couple of drachms of distilled water being poured through the filter afterward into the bottle to wash it. One part of this stock solution to twenty parts of water forms the toning bath.

DRESDEN EXPOSITION

1 and 2. The Studio House
3. Entrance to Industrial Hall
4. Moving Picture Building
5 and 6. In the Grounds

Copr.

Alexander Berkman, Socialist, Reformer, etc.

By VANDER WEYDE, New York

Alexander Irvine, Socialist, Clergyman, Author, etc.

By Vander Weyde, New York

Copr.

Senator Depew, New York

By Vander Weyde, New York

Maxim Gorky

By Vander Weyde, New York

1. Repose
2. Rouviere as Hamlet
3. Woman with Parrot
4. Woman with Cherries

*Illustrating Sidney Allan's Article.*

5. Bon Bock
6. Manet's Parents
7. Woman with the Black Hat
8. Head of an Old Woman

*Illustrating Sidney Allan's Article.*

9. The Hothouse

10. Strolling Musicians

*Illustrating Sidney Allan's Article.*

# MASTERS OF PORTRAITURE—EDOUARD MANET.

BY SIDNEY ALLAN.

[WITH this article Sidney Allan begins a series of articles of unusual interest to the portrait photographer. Some of the greatest portrait painters will be discussed (biographical and historical matter will not be given, as this can be found in regular biographies); their work will be considered from the photographic standpoint. The lessons to be learned from their methods will be pointed out in Mr. Allan's well-known direct and simple manner.—ED. W. P. M.]

FOR years Manet's pictures were decried for grossness of sentiment and brutality of treatment. A shudder seemed to run through polite society whenever they encountered a new work of his.

Now he is accepted as a classic, and it is difficult to understand the opposition of former generations. Looking at random over some of his pictures (for instance, those that accompany this discussion), we realize that he had his own peculiar, perhaps ultrarealistic viewpoint. There is something in the majority of his paintings, in particular his "Rouvière," "Woman with Parrot," and "Strolling Musicians," that impresses us as being awkward, eccentric, or commonplace—at all events, not beautiful in the accepted sense of the word. But there is nothing artificial and insincere about them. His art is always frank and vital, natural and individual. He tried to express life as he saw and comprehended it. Technically he was efficient from the start—some of his best pictures were painted before the age of thirty. He was never satisfied, but continually tried to improve his style of expression.

During the first twenty years he was considerably influenced by the Old Masters, not only in the way he put on his paint, but in the composition. Figs. 2, 3, 4, and 10 all remind one of Velasquez and the Spanish school, and Figs. 6 and 8 of the early Dutch portrait painters. He is most himself in the "Bon Bock" and in "The Hothouse." They are absolutely modern and have the directness of an instantaneous photograph. They both represent the work of his latter period, when he had completely freed himself from Old Master influences, and devoted all his energy and faculties to a finer comprehension of contemporary life, of character and light.

His "Rouvière as Hamlet" is specially praised for its deep blacks and virile grays. This is difficult to judge from the reproduction. As it is, the costume, despite its darkness, shows remarkable clearness of detail. The braiding of the mantle, doublet, and sleeves helps to emphasize the form, and the values are so accurate that they suggest a differentiation of blacks in the feather of the hat, the tights, and the rest of the costume. The pose is theatrical, but at the same time strictly mediæval in character. It reminds one of the Venetian school. The only modern note is the light foreground, a rather bold experiment, showing the legs as clearly defined silhouettes throwing a triangular shadow. This makes an individual interpretation out of what otherwise would look like an imitation. The large light plane below is well balanced by the face and hands.

The "Woman with Parrot" is treated like a Velasquez, and yet the woman is so extremely realistic and modern that one forgets the breadth of handling.

The picture hangs in the Metropolitan Museum, New York, and I have often seen people shake their heads over it. The wrapper is surely not beautiful, and the pose is a heavy though an unconventional one. But one cannot help admiring the simplicity of the pose, and how frankly the figure is placed in space. Manet did not find it necessary to eliminate anything; every line is clearly shown and helps to carry out his peculiar conception.

The "Woman with Cherries" has the same delightful breadth of treatment. Particularly noteworthy for this picture (as well as for Figs. 1 and 3) is the concentration of light upon the entire figure. Manet's figures of the earlier period, when he used dark backgrounds, always show the contrast of a light, clearly defined shape and a dark surrounding mass. This method is sure to lend vivacity to any composition, but great care has to be bestowed upon the general contour and the various lines of the dress. In this instance the dark braiding of the jackets lends a special linear interest to the figure. The two white accents of the underskirt, dashed in probably at the last moment, reveal the master's hand. They throw the whole figure into relief.

The background, with its glimpse into the interior of a café, shows a clever division of space. The white spot in the background, meant, I presume, for the apron of a waiter, was hardly necessary. The foreground is light again, as in most of his pictures.

The picture "Resting" (Fig. 1), is exceedingly graceful for Manet. There is a rare swing of lines, such as we are used to see in Alexander's paintings, in the reclining figure. It makes one think of Japanese prints. Manet, however, had the rare faculty of individualizing any suggestions that might have come to him, and so also this space composition has a decided "impressionistic flavor." The foreshortening of the body is marvellously well done, although the smallness of the head in comparison with the largeness of the hip has something photographic about it. His love for extreme realism might have induced him to introduce this photographic peculiarity, but it represents a realistic note that is untrue to life. As a composition this picture is less a Manet than any of the others. It is an attempt at refined beauty, and that was not one of his strong points. And yet the very free way in which the figure is posed and placed in the simple interior, the flowing lines, the wistful expression of the face, the superb feminine way of managing the skirts, and the beauty of the hands show remarkable skill. I wonder if the picture would not make a more quiet and concentrated impression if the handkerchief to the left and the light cushion to the right had been left out? But this painter was always fond of a certain restlessness of representation, as it lends virility to his interpretations.

"The Woman with the Black Hat" (Fig. 7), is a mere study. The play of light on the face, and the juxtaposition of black and light masses, are fascinating as a study of contrasts. They are, however, too exaggerated and too harsh. One cannot take such an experiment very seriously. It merely shows what a wonderful depth and sparkle of light can be obtained by exaggeration.

In Figs. 6 and 8 we have serious characterization, while in Fig. 10 we have a representation of instantaneous expression. The "Head of an Old Woman" (Fig. 8), is interesting as an unfinished sketch. It seems to be rather hastily made. The drawing of the face with its delicate values is beautifully done, but the head is badly placed, and the background too careless in treatment. The facial expression, on the other hand, is spontaneous and life-like.

"Manet's Parents" (Fig. 6), impresses me as being too severe; there is too much detail and the lines are too hard. The facial expression, although characteristic, no doubt, is a trifle rigid. The picture, somehow, reminds me of a daguerreotype. There is considerable breadth in the treatment of detail, but there is a strange absence of animation. The artist knew these models too well, and he tried to be too accurate. There was no spontaneity of observation. He painted these pictures as a young man, when he was still under the influence of Ingres, the greatest draughtsman France has ever seen.

What a remarkable progress the artist made in character delineation we see in his "Bon Bock," which left his studio about twelve years later. It created a sensation. Since Hals, few painters have caught the flitting expression of a human face as well as Manet. He had succeeded in creating a technique in which every touch is pulsating life. As a composition the picture may be considered ordinary, but if a portrait gives us the rare impression of real life, no elaborate composition is necessary. For a face that by a keen glance or vague smile, or any characteristic natural expression, speaks to us like an old acquaintance, has to be well placed and satisfactorily treated, or it would not be capable of making much an impression. There is nothing which I could suggest that would improve the picture.

"The Strolling Musician" (Fig. 10), on the other hand, is to me one of the most unsatisfactory of Manet's pictures. It may be very beautiful in color, but as a composition it does not strike me as fortunate. There is a certain unconventionality about the figures which is pleasing, but they represent such a queer collection of unexplainable people, in particular for a realistic representation, that I, for my part, cannot arouse any particular enthusiasm on contemplating them. Technically, the head line, almost straight as it touches the heads of the children and the seated musician, and then ascending to the ridiculous stovepipe and gliding down again to the turban of the old Jew, is interesting as a novel scheme for grouping a number of figures. In this instance, the figures are really all detached from each other, and yet pull together.

In "The Hothouse" (Fig. 9) is a true Manet of his latest impressionist period. Light figures against a light background. Everything is diffused with light. There is a profusion of detail and the figures are rather ordinary, and yet everything is rendered interesting, even to the bars of the bench and the pleats of the woman's dress. Notice how graceful the two figures, particularly that of the woman, really are, despite the conventional costume and prosaic accessories.

This picture furnishes a most convincing proof that nothing in our modern life (so often deplored as being unpicturesque) is so commonplace that it could not be made pictorially interesting by some skilful application.

This is one of the great lessons which Manet has taught—to search for the beauty in modern life, in contemporary surroundings, as independently as possible, without any interference of former traditional ideas of esthetic refinement and beauty. Only in this fashion interpretations of human character can become logical and true to our time.

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The image on the focussing screen is not formed by the lens but by the rays of light from the object. The lens sifts or alters these rays, permitting a few to do what many would not.

"Depth of field" is the distance between two objects lying at different distances in a straight line from the lens. Unlike "depth of focus," it amounts to feet instead of inches in ordinary cases.

# THE OIL PIGMENT PRINTING PROCESS.

BY JOHN H. GEAR, F.R.P.S.

(Concluded from page 334.)

We now arrive at the preparations for the pigmenting stage. Several thicknesses of blotting paper of a larger size than the print must be thoroughly soaked in the water. The print, after being soaked in water, is laid upon a clean piece of paper—not blotting paper, or one will gather up fluff—then a piece of fine butter muslin, which has been previously well boiled, and which will work better if it is slightly damped, is used to wipe the surface of the print. It is necessary to remove entirely and evenly the slight film of water that may remain on the surface. After this the print is laid upon the blotting paper, or better still, "Robosal" board, and this upon the drawing board for working. Previously, however, it is usual to prepare the pigment, and here comes in the difficult part of the process. The making of the ink to the proper consistency is a matter, of course, in which experience alone guides one, but it will be well to remember that the stiffer the ink the longer must the paper have been exposed and the more granular and rough in appearance will the print be. On the other hand, if the printing has been comparatively short, a thinner consistency of ink must be used, and the smoother will be the result. We have, therefore, a certain amount of latitude in varying the gradation of our print, and if the negative has been too strong in contrast we may obtain certain variations by using an ink of a thinner consistency. These things, however, I do not advise the beginner to attempt. It is best to begin by using a fairly stiff ink, and dilute is as may be found necessary. It would be impossible to recommend an ink that will work correctly or equably at all times of the year. The ink that I can use now throughout for the print became in the summer so soft that it could only be used for finishing off the greater depths. The mixing of the ink so as to get varying colors is another treacherous point for the beginner. Some inks will not mix with others. If I wish to obtain brown or warm black I use burnt sienna with the black, and make up a quantity that I think will fully cover the print I have for pigmenting; for if the worker finds that he runs short I am quite certain he can never mix quantities to produce the same color again. I prefer to use a piece of ground glass for my palette, placing the ink on the ground glass side and to spread it thinly towards the side of the palette from which I am working, in order to enable me to take up a very small quantity. The brush must not be charged to any excess at the commencement of the pigmenting. A print that is inked too freely to start with will probably give trouble.

In laying on the pigment, my plan is to work my horizon, and the parts of the subject that may be obtruding above it, then gradually work downward, giving a light image over the whole of the print. Then, by recharging the brush, gradually working up the strength to some point which I may term the key of my tones. As a rule, I work my landscape almost fully (without giving the final touches for lightening or toning down a part) before I work my sky. In this way the sky can be worked much more successfully, and there will not be that ragged appearance about the sky line which I have seen in some prints. The manner of applying the ink is a most important point. The brush is held between the first two fingers and the

thumb, and by being held at the top more flexibility is given to the stroke. The point of the brush often scarcely leaves the paper; in fact, sometimes it is necessary to use a distinctly dragging action, at other times the brush is lifted a little more freely. I pigment the print according to the tone values I require as nearly as possible, but it is necessary to modify it afterwards to some extent. The pigment must not be put on unnecessarily—that is to say, if any part requires a light tone, the pigment must be lightly put on at the first, and undue advantage must not be taken of the fact that it is possible to remove an excess of pigment afterwards. The greatest difficulty we have to contend with in this pigmenting stage, is dust. The amount of dust which will settle on the print, even under the best conditions, is astonishing. It can be got rid of by spraying the print with water after the pigment has been allowed to set for a time, or sometimes by careful brushing with a hog brush after drying, without, of course, removing the pigment.

It will often be found necessary to change the ink from one consistency to another in order to give greater depth. But a hard ink can never be used over a soft ink. If a commencement be made with a soft ink, and this be followed up by a hard ink, the latter will remove the soft ink, and the worker will get into a serious muddle. Another point to remember is, that if a small portion of a print be wrongly worked it will often take as long to get it right as it would take to make a whole print. A print which I had intended to show this evening had taken me two or three hours to work, but there was one little part not more than a quarter of an inch square which I thought needed a little more ink. My pigment had been upon the palette for some two and a half hours, and had got a little drier than the pigment on the print, which had been kept quite moist, and this produced the same effect as adding the hard ink to the soft ink. It caused endless trouble, and the result was so unsatisfactory that I abandoned the print altogether. In the case of a print that is not satisfactory, a little gasoline may be taken on a cloth and rubbed over the print, removing the whole of the pigment. Then the print must be put in water and resoaked and worked again on some subsequent occasion. If it is needed to lighten a tone here and there a quicker action of the brush—almost a bounce perhaps from the paper—is necessary. In picking out small highlights the best brush to use is a No. 2 Student's flat hog.

It must be remembered that we are dealing throughout with bichromated gelatine, which has a very peculiar action and I think it is perhaps beyond the powers of any one to say what takes place at all times. The print will not always be found to yield to the same manner of treatment. The brush may require to be slightly moistened with water, cold or warm, to obtain a highlight, or a lancet or knife may be used. An ink that dries rapidly has not the good effect of one that dries slowly. I prefer ink to dry slowly; in fact, I do not mind whether it dries at all. No one expects to take a photogravure or some other kind of photo-mechanically-made print and handle it directly. If a print will dry sufficiently to enable one to trim it and mount it with care, its luminosity will be found to be better than if it had dried off quickly. Several things have been recommended for the purpose of diluting the ink or reducing its consistency. At one time I used megilp, but I found that although this will reduce the ink successfully, there is frequently a tendency for the ink to be picked up. Linseed oil will probably work more smoothly and with less trouble. But in using any of these media to reduce the consistency, the merest suggestion is

sufficient. The ink should be placed on the palette, and the end of a small brush dipped into the linseed oil or other dilutant and then placed on the palette. The merest touch will probably reduce the ink sufficiently. With regard to the brushes, I cannot work with a straight-cut brush. I prefer the *pied-de-biche*, or hare's foot pattern, and brushes of the very finest quality are essential. The shape and condition of the brush will only be retained with care, and it should be cleaned in gasoline or benzoline after working the print. If the brush does not keep its natural shape, great difficulty will be found in applying the pigment in the fashion desired.

Mr. Gear then proceeded to demonstrate the process, carrying out the operations of sensitizing the paper, exposing, soaking, and pigmenting. Among the new points brought out in addition to those mentioned above were the following:

Care should be taken in sensitizing not to allow the solution to get underneath or at the back of the paper, and, in order to avoid that, the stroke of the brush should be commenced at the centre, made in one direction, then lightly in the opposite direction, and finally once or twice more in each direction.

He much preferred sensitizing the paper on the surface to immersing it in the solution. By sensitizing the surface only, a gradation was retained in the deepest shadows that was frequently lost when sensitizing by immersion.

The temperature of the room in which the print was inked was of great importance. If the surface dried too quickly the effect would be found to be rather flat after working for a short time. He worked in the basement, where, as a rule, the temperature was fairly constant both winter and summer.

By reason of the peculiar nature of the surface of the gelatine the image, even if it had been all but washed out, could generally be seen on commencing to pigment. The parts which had received the action of light to any extent would show a matt surface; those that had absorbed the water would have a more shiny effect.

When it was necessary to recharge the brush with pigment after having worked a certain disatnce, care should be taken to apply the newly charged brush to the deeper tones, and not to a delicate tone or a highlight. When working the sky it would generally be found that the margins had sufficient pigment upon them to charge the brush for the delicate treatment a sky required unless a somewhat heavy sky was wanted. The more working the print received in pigmenting the sharper would the detail of the print appear. Very rapid touches would not remove the ink from the deeper parts to the same extent as they removed it from the highlights.

A lateral stroke of the brush was preferable in removing the pigment, but if this was not possible the print should be given a series of sharp, slightly bouncing touches. Pigment that was difficult to remove would come off very easily, perhaps rather too easily at times, by slightly moistening the brush with water or gasoline.

Brushes should never be laid down on the table during the operation of pigmenting, but should be held in the hand all the time.

At the close of the demonstration a number of questions were addressed to Mr. Gear. Asked whether two prints absolutely identical could be produced by this process, Mr. Gear said that he did not believe it was possible to make a fac simile of a print. When it was considered that each print was made up of hundreds of strokes of the brush, each stroke, whether rapid, hard or soft, having a telling effect, it was impossible to repeat exactly that combined effect a second time.

# THE PORTRAIT PRINT—ITS SIGNIFICANCE IN INTERIOR DECORATION.

BY SADAKICHI HARTMANN.

THE elaborate way in which the larger metropolitan establishments mount and frame their prints has attracted attention everywhere and called forth critical comment, favorable as well as reverse, from various quarters.

Nobody can deny that they go about it in a conscientious, almost scientific manner, and that they usually display a good deal of taste; but the general opinion seems to be that they attach too much importance to a detail which, although capable of enhancing a picture to a remarkable degree, can do but little toward improving its quality.

The art photographers differ on this point. They argue that a picture is only finished when it is properly trimmed, mounted, and framed, and that the total effect of prints, mats or mounts (some use still as many as four or five of different color), signature, and frame, should be an artistic one, and the picture be judged accordingly.

In painting, frames only serve as "boundary lines" for a pictorial representation similar to those to which we are subjected in looking at a fragment of life out of an ordinary window. The frame clearly defines the painter's pictorial vision, and concentrates the interest upon his canvas, even to such an extent that all other environments are forgotten. At least, such was the original idea. But it seems that we have grown oversensitive in this respect; we should see the frame harmonize with the tone or color scheme of the picture it encloses.

Up to date, very little has been done in this direction. The official exhibitions still insist on the usual monotony of gilt frames, and the painters seem to have neither any particular inclination nor the opportunity to create frames of lovely forms and self-respecting, balanced patterns of their own. The frame-makers and art dealers are masters of the situation, and their interests are strictly mercenary ones.

"Attractive enough at first sight, hopelessly inartistic on further inspection," is a verdict which one has to give of the average frame of today. Tryon, Dewing, and Horatio Walker were a few of the painters who seriously opposed the mechanically manufactured picture frames. They have their frames specially designed for each picture, Stanford White being the designer of quite a number of them. Their frames are wide and flat, without corner and centrepieces; the repeating pattern is generally a simple, classic ornament, with a tendency toward vertical line. The architectural designs, with Greek columns on the upright sides, look rather heavy and are less recommendable. The coloring is gold, but tinted and glazed by the painter himself until it corresponds with the color keynote of the special picture the frame was designed for. This method has found favor with many of the younger men, but a radical change cannot take place until the despotic "framing rules" of exhibitions have been abolished.

The art photographers, on the other hand, have no rules to adhere to. All they want is an artistic embellishment for their prints. They can allow their imagination full sway. They obey every impulse and whim, and indulge in any scheme so long as it is practical and specially adapted to the print for which it is planned. Every frame is

made to order. They ransack the frame-maker's workshop for new ideas, and revolutionize the whole trade. The result is often bizarre and overfastidious (some photographers apparently mistake their packing-paper mounts for sample books of paper warehouses), but also a fair average of sterling quality is produced.

The mounting and framing of the leading artistic photographers of America are simple, tasteful, and to the point. They go far ahead in this respect of all other black-and-white artists, and can proudly claim that they are the best mounters and picture framers of the world. Their style is largely built up on Japanese principles. The Japanese never use solid elevated "boundary lines" to isolate their pictures; but, on the contrary, try to make the picture merely a note of superior interest in perfect harmony with the rest of the *kakemono*, which, again, is in perfect harmony with the wall on which it is placed. The Japanese artist simply *uses* strips of beautifully patterned cloth (generally brocade), to set off the picture, and endeavors to accentuate its lines and color notes by the mounting and momentary environment, which is easy enough, as the mounting is generally so artistically done that it fits in everywhere.

I refer, of course, only to Japanese homes. Pictures in Japan are merely regarded as bits of interior decoration. The Japanese art patron does not understand our way of hanging pictures in inadequate surroundings; he does not disregard the technical merits of a picture (which is to us always the more important point), on the contrary, he is very sensitive to them; but he always subordinates them to his inherent ideas of harmony. He will never hang a picture if it does not harmonize with the color of his screens, the forms of his lacquer cabinets, etc.

The art photographers try to be like the Japanese in this respect. They endeavor to make their prints bits of interior decorations. A Coburn portrait arranged in grays, a pictorial fancy by Goldensky or Pierce, enhanced by a suggestion of neutral or subdued color, or a Kasebier print mounted in cool browns and grays, cannot be hung on an ordinary wall. They are too individual; the rest of the average room would jar with their subtle color notes. They need special wall paper and special furniture to reveal their true significance.

That is where the esthetic value of the photographic print comes in. It will exercise a most palpable influence on the interior decoration of the future. People will learn to see that a room need not be overcrowded like a museum in order to make an artistic impression, that the true elegance lies in simplicity, and that a wall fitted out in green and gray burlap, with a few etchings or photographs, after Botticelli or other old masters, in dark frames, is as beautiful and more dignified than yards of imitation gobelins or respoussé leather tapestry hung from ceiling to floor with paintings in heavy gold frames.

We have outgrown the *bourgeois* beauty of Rogers statuettes, and are tired of seeing Romney backgrounds in our portraits and photographs. The elaborate patterns of Morris have given way to wall paper of one uniform color, and modern furniture is slowly freeing itself from the influence of former historic periods, and trying to construct a style of its own based on lines which nature dictates. Whistler and Alexander have preached the very same lesson in the background of their portraits. Everywhere in their pictures we encounter the thin, black line of oblong frames which plays such an important part in the interior decoration of today, and which invariably conveys a delightful division of space.

The art photographer has improved upon the black frame and white mat. He has created in his frames innumerable harmonies of color, form, and material, and if there will be a demand for them, and if they will ever serve as suggestions for interior decoration, we will surely be able to steer clear of monotony, for I must confess that if the majority of rooms were furnished in the Whistler fashion (as suggested in the "Portrait of His Mother" and his "Carlyle") it would be as unbearable as the present museum style.

The former way of mounting photographs on stiff cardboard, which could only be put in albums or bric-a-brac frames on the mantle-piece, etc., had no artistic pretense about it whatever. The present way, mounting the print on large gray sheets of paper with rough edges and overlapping covers, is nothing but an invitation to buy a frame for the print and hang it on the wall. The portrait print has acquired a pictorial significance.

But it is, after all, an open question whether these efforts will be crowned with success. We are too much interested in the utilitarian equipments of our homes ever to give, as the Japanese do, first consideration to harmony. And harmony, perfect harmony, is necessary to adapt their style of interior decoration successfully. Their accentuation of details, which, in turn, are lost in the background, is impossible with our present system of house-building. So long as door-jambs and window-sills and mantel-pieces are manufactured wholesale, and so long as our rooms are infested with the stereotype chandeliers, registers, etc., a burlap wall with a few "artistic photographs" will not save us. And to go to the extreme, as some esthetics are apt to do—and they have to go to extremes from our viewpoint—will always be regarded as an eccentric, visionary accomplishment. I personally have never been oversensitive to my surroundings. I like a general harmony of effect, but would tire of any room that carried out a distinct line and color scheme, and I would find it rather ridiculous to build a special sanctuary for a Whistler etching, a Dewing silver print, or a Dührkoop photogravure. In Japan furniture is scant, and the interiors of the houses generally kept in a neutral tint, to which the details lend the color notes. If our interiors were as simple and artistic as the Japanese ones, we would have a good basis to work on.

As it is, the photographic prints are finger-posts in the right direction. Whether we can pursue the indicated path to the very end is a question which the future has to decide.

## AMERICAN PROFESSIONAL PHOTOGRAPHY AT DRESDEN.

THE following interesting description of the American work at Dresden, from the pen of an English journalist, is taken from the *British Journal of Photography*. It shows how American portraiture in the aggregate impresses the foreigner:

There is no doubt that the section which will attract the English visitor most is that of the American professionals, since the names alone, Hoyt, Garo, Goldensky, Core, Pierce, Mock, Strauss, Falk, and MacDonald, are as well known to photographers in this country as in America. And interesting the large collection is, though in a different way very likely from that intended by its contributors. The 286 portraits have been brought together by Mr. Pirie MacDonald and Herr

Dührkoop, the latter's acquaintance with the American workers dating back to the St. Louis Exhibition. It would seem that, without a single exception, the collection contains the work of the acknowledged leaders of portrait photography, in addition to which it shows, for the first time in Europe, portraiture by new men which bears comparison with the productions of the leaders, and in some instances possesses qualities absent from that of the best-known studios. The first thing which cannot fail to strike the student of this section is the absolute sameness of all the prints by a given exhibitor. That applies to the lighting and to the kind of print, and to the mounting as well, and it can be observed in the case of most, though not all, of the front rank of American professionals. The style may be altogether different from that emanating from the studio a year ago; but, to judge from the photographs at Dresden, the American method is to evolve a certain form of print—as distinctive as you like—and to adjust the methods of the studio to turning out that particular form as effectively as possible. Obviously that should be a sound commercial system to work on, so long as it does not fail in retaining customers. But apparently the directors of the studios are wide awake to the necessity of changing the kind of print before the public has tired of it. In almost every instance, the American work represents a high degree of retouching: in this, as in other respects, it is most finished and admirable, and the set of prints by each exhibitor leaves one in no doubt as to the style favored; and the display of a dozen or more portraits all as like as pins in style creates the idea that the makers are able to reduce the details of their production to a system which turns out a product of a certain type with machine-like regularity. This is not to say that the American photographs do not show many excellent and individual features; they do, but the family resemblance between each print of one group cannot fail to impress the visitor.

The ten photographs by Mr. Dudley Hoyt are all of women, richly gowned ladies of imposing appearance—or made to look so by Mr. Hoyt. In every instance the space of the print is admirably filled by the subject. There is not an example of the dropped appearance of a figure which one often sees. One cannot suggest how much better the result would have been had a figure been so much to the one side, for the reason that the portraits admit of no improvement in the manner of accommodating the size and form of the image to that of the final print. Mr. Hoyt adopts a strong style of lighting. His prints are all large ovals with narrow oval border a little darker in tone, and around this a square-cornered tint of a little lighter tone, the whole actually printed on a white plate-marked paper.

Frank Scott Clark, of Detroit, shows photographs only of women and children, in which good use is made of dark Romneyesque backgrounds and strong lighting to show the sheen of silk skirts. The mounting is in the Cosway style.

George M. Edmondson, of Cleveland, shows five superb examples of what must be at home portraits, though very beautiful lighting has been secured.

The three prints by George E. Tingley, of Mystic, Conn., are in much nicer schemes of multiple mounting than we are accustomed to see here, except from workers like Mr. F. H. Evans.

A professional worker of whom we have not previously heard is Eugene R. Hutchinson, of Chicago, whose portraits show a highly developed sense of the massing of tones. The photographs are not large, but they are as strong and full of individual character as anything in the section. Mr. Hutchinson

uses diffused focus with reserve, and thus avoids the over-retouching which most of the American photographers consider necessary. It is a pity that Mr. Hutchinson should think it well to adopt the "Photo-Secession" trademark of art—the round globe. He introduces it into two of his portrait studies. Both they and the others show the maker to be capable of such fine work that we should be sorry to see him stooping to these tricks of method.

The people who would appear to be favorite sitters of Mr. Elias Goldensky, of Philadelphia, are not those who are beautiful. His photographs show people of character, most of them old people, in every case drawn by Mr. Goldensky with his accustomed regard for harmonies of tone and color.

The work shown by Garo, of Boston, is quite up to the standard of this photographer. The portraits are nearly all of women, are printed in a rich sepia, and are of the superb technique as regards lighting of the face and dress, which is characteristic of this studio.

Mrs. Kasebier's five frames are quite out of the common. They are titled "A Japanese-Tissue Print," "A Gum Print," "A Bromide Print," "A Gum-Platinum Print," "A Platinum Print." This little demonstration of Mrs. Kasebier's command of these processes is at the same time a very good testimonial for the bromide process. The bromide print is of remarkably rich black tone, and reproduces the muslin and silk of the sitter's dress most admirably. Mrs. Kasebier's portrait of Mr. Alfred Stieglitz is a striking likeness.

E. B. Core ("Papa" Core to all the "boys" in New York State) shows ten of the portraits of children which have made him and his studio famous. And delightfully spontaneous they are in pose and expression. When a collection of photographs typical of the work of American studios was shown at the house of the "B. J." some time ago, Mr. Core's portraits attracted more notice than any, not only for the natural appearance of the little sitters, but for the force and strength of the prints. They were vigorous black prints, the background in which was white, as a rule. All the pictures at Dresden, Mr. Core has printed in sepia on a cream paper, though he gets an equally big effect.

The veteran, Joseph Byron, of New York, is represented by four large prints, associating him, as ever, with flashlight photography.

H. H. Pierce, of Boston, is another of the men with a very distinctive style of his own. All his portraits are in somewhat dark tones, and are mounted first with a narrow and lighter border, next to which comes a broader and much lighter band, the back mount being dark. The technical quality of the series is of the highest order, and the only criticism which can be made is that the sameness of the style becomes marked when a number are shown together.

The last remark applies with even more force to the portraits of men by Pirie MacDonald. Nearly thirty of them are hung in rows, all of panel shape, and in every case "framed close." As there are but two sizes of frame, and as the full thirty are arranged symmetrically, the impression made is not that which Mr. MacDonald's fine work deserves. In expression of character these heads of men stand by themselves in professional photography. Their author, like the volatile Dührkoop, is a man "with a way with him," a great and interesting talker, and an observer of men, one with a nice sense of humor, and powers of discovering his sitter's characteristic traits. We would like to have seen his portraits shown in a way which offered more inducement to study each individually.

It may be our imagination—we think not—but in no portraits do we seem to discern the suggestions of the photographer so plainly as in those of Mr. Strauss, of St. Louis. There is not one face among the dozen or so that looks dull or uninterested. It would appear that Mr. Strauss is determined they shan't. Some seem mildly to disapprove what is going on; some women seem amused; children have the appearance of liking it immensely. Of the photographic qualities of the portraits, it is only necessary to say that they are beautiful examples of lighting and printing—no less so are those by other Americans—but it is not easy to find quite the same air of moderated animation elsewhere. Only the sitters' friends can say if this is the making of the portraits. Mr. Strauss's success suggests that it is.

## THE PHOTOGRAPHIC CONVENTION OF THE UNITED KINGDOM.

### Presidential Address Delivered at the Twenty-fourth Annual Convention, at Canterbury, on Monday Evening, July 5, 1909, by H. Snowden Ward, F.R.P.S.

My first words must be thanks, sincere and heartfelt, for the great honor you have done and the great gratification you have given to Mrs. Ward and myself. To some people, even in the photographic world, the presidency of The Photographic Convention of the United Kingdom may mean little; to us and to all who really know the Convention and its members the position means very, very much. The honor that one receives among one's own people is the great and the real and the appreciated honor, and we have learned to know the Conventioners so well that they all seem to be very specially and intimately our own folk.

With the honor came opportunity, with the opportunity a great responsibility, of addressing you, and through you the great world of photography which you represent. And with a full sense of that responsibility, the subject chosen has been photography and art.

To the old trite question,

*"Is Photography Art?"*

one must answer unhesitatingly, No! Photography is no more art than is painting, sculpture, the writing of verse, or that combining of noises into tunes which is often called music. In asking "Is photography art?" we begin with a question wrongly stated. I prefer to restate it—"Can photography be used as a means of artistic expression?" and to this the answer is, unhesitatingly, "Yes!" The man who has real music in his soul is an artist, whether his means of expression be brush and paint, stone and chisel, or sun and sensitive salts; and I regard this as a fact to be stated rather than a subject to be argued about. Its demonstration to the world lies with those photographers who have pictorial aims. To-night let us consider briefly what those aims are, what are the means toward their attainment, and lastly—or perhaps firstly in this utilitarian age—"Is picture making worth while?"

Many definitions of art have been given. For our present purpose let us hypothecate that art consists of

*Seeing, Recording, and Suggesting.*

All photographers are recorders. When they see, and suggest in any high, broad, noble sense, they are artists. The record, even the perfect record, is not

necessarily artistic. Some of the earliest draughtsmen, working on lines which still appeal to the child, devoted themselves to portraiture. They showed the human head in profile, but realizing that the normal face had two eyes, placed both of them, and a full front mouth, in the side of the head toward the spectator. Then realizing that a full face without a nose looked odd, they drew a line between the eyes and mouth; and sometimes they inserted an ear, but not always. In some ways this kind of portraiture is a better record than the more normal form; for both the profile and the full face are interesting; yet it has been abandoned by general consent.

Another phase in the presentment of the human form was reached by certain Egyptian artists, who displayed the head in profile, the body and arms full front, the legs and feet in profile, walking the same way as the head. Another step in artistic evolution is represented by those Japanese works in which the head and body are shown as actually seen, but drawn as if they were flat, without any attempt at relief or roundness, without any real suggestion that the nose on a full face is nearer to the spectator than is the ear. We progress by stages to methods which suggest roundness, relief, light and shade, and space between the sitter and his surroundings. This means a considerable advance toward art, but it is art of a mechanical, conventional class; and this is the highest that has been attained by most photographers.

### *The Beginning of Real Art*

is reached when one begins to see, and to record so that others can see, something beyond the mere physical facts, some hints of the inner, mental, or spiritual quality. At this stage we begin to realize that the subject is merely a means to an end, and that what we call a beautiful baby is no more pictorial than a wrecked old man. A picture does not mean a beautiful thing photographed, but a thing beautifully photographed. And pictorial ability depends upon insight, natural or cultivated, rather than upon technical ability. It depends upon the power to see beyond the obvious; upon the God-like power of sympathy which is not pity, but is understanding. Art sees beauty in the noble head of a fine old man who has done and triumphed greatly, or of a gentle lady who has suffered and been strong; but a greater art is that which sees the marks of struggle and of high aspiration in the degraded face of the man or the woman who has failed in life's fight.

Let us turn for a moment to the study of nature and of man's work as apart from man himself. Let us consider some of the differences between

### *A Picture and the "Usual Thing."*

Photography, generally, is in the stage of the Japanese artist, who considers only the flat shapes of things. It depicts in landscape a certain amount of light and shade, but no roundness, and it ignores all effort at decorative placing and at beautiful or natural relations of its masses of light and dark. Beyond this point photographers are moving slowly. Many have already gone far beyond it. Let us take a concrete instance; the beautiful Bell Harry tower of the cathedral that stands near us. We know how it is ordinarily photographed. The picture post-cards show it. We may see it bare and bald, rising above, but dwarfed by the lower buildings and the trees, often rising into a blank sky, sometimes almost lost in untrue printed-in clouds. And this sort of thing satisfied photographers for many years, while artists, who

were not satisfied, blamed photography instead of blaming the men who misused our beautiful process.

When one realizes that the tower has attributes of height, majesty, grace, and delicacy, one attempts to show these by selecting position, lighting, and treatment. To emphasize the tower and to subdue all competing detail becomes the object. The Prior's Green makes a good viewpoint: with the dark entry giving a rich, gloomy base from which the light, graceful tower appears to spring. When the subject is photographed in the ordinary way, whatever care we may give to exposure, development, and printing, the result is untrue; even though many people may admire it and few may detect the untruth. The beauty of the Bell Harry tower in sunshine is when it shows white and filmy and lace-like against a deep blue sky of distinctly darker tone. In the print the tower is a light gray, against a sky of lighter gray or white. It is not difficult to record the subject in its true values; the color-sensitive plate and light filter enable us to do that; but the study of nature that makes us realize the necessity for doing it is the artist's part.

If portraits may be treated to show character, landscapes may be made to typify peace, sunshine, prosperity, grandeur, or havoc; and architecture to show the ideas of worship and sublimity that inspired the cathedral builders, or the heroism and defiance of fate that are part of the very fabric of our historic castles. The maker of local views goes to Harlech Castle and gives us a print in which every stone is distinct, and the towers and bastions are smoothly lit and gently rounded. It can be properly described by the feeble adjective, "pretty," and it pleases the ordinary buyer of local views. But speak of Harlech Castle to the imaginative Welshman, who knows something of its long sieges, its stern defiance of the foe, its endurance of hardship, and its times of triumph. Mention it to the man who knows that "Men of Harlech" was written during one siege, and set to the stirring, defiant strains of a tune composed during another siege by men who were in the front of the fighting; and while the thought of the great march quickens his every pulse, the vision of Harlech Castle called up in his mind is very different from that of the "local view" man.

These thoughts raise the consideration of

*The Equipment of the Picture Maker.*

He should not only know something of history and of music, but also even of the history of music. In fact, he should know everything, and enjoy everything great and beautiful and noble—yea, he should even know the depths of sorrow and of disaster. A wide culture is demanded. No knowledge is useless. Every form of art, literature, poetry, music, history, architecture, anatomy, religion, politics, even engineering and manufacture, may be studied with advantage. But first and last, and best and greatest of all, is the reverent study of nature and of man. The question

*Is Picture Making Worth While?*

or should we not be content with excellent record work? is answered in the last few words. If it is worth while to associate with the best people, the best thoughts, and the best aspirations of the world, then it is worth while to study and interpret, to see and to suggest, not merely to record in a mechanical way.

Photography may be a matter of teaching, art is a matter of education, which I prefer to call education, to remind us of the real meaning of the

word. The drawing out, the cultivation, the unfolding of the best that is within a man is the making of an artist, and as he gives of his best to others he grows and gains for himself.

*The Position of Photography Among the Arts*

is destined to be a most important one, and it can never be too strongly impressed upon outsiders that what have been spoken of as the limitations of photography are really only the limitations of photographers. We have hardly begun to exploit the possibilities of our great versatile process. Even so, we have *some* achievements to our credit, and while there are many things in which we must long be content to learn from the great masters in other modes of expression, there are a few points in which I claim that the best photographers stand ahead of the popular successful painters of the day. In painted portraits that secure the highest of prices and the chief places in exhibitions, one sees certain weaknesses that would be condemned if found in the work of the photographer, and I venture to claim, quite seriously, that today some leading portraitists might learn good lessons in (*a*) the placing of the figure within the canvas; (*b*) the proportion of the figure to its surroundings; and (*c*) the tone harmonies of figure and surroundings, from the leading photographers. In these directions, at least, our exhibitions of paintings show mastery quite inferior to that of Annan, Crooke, Hollyer, Furley Lewis, Hoppé, and several other British workers—not to mention many in other countries.

*The Photographic Art Critic*

demands a few words, and I hope for your pardon if, in talking of him, I am talking "shop." He is badly needed in photography; and he needs to be more confident as well as more competent. His function is to interpret, to encourage. If he has to check the evil, it is only that the good may grow. He need not be an executant, and in my opinion he *ought not* to be an exhibitor or competitor, for he needs breadth of view and catholicity in the extreme, and it seems to me that the successful executant needs specialization, which must give him bias in favor of the field of his own study. He needs insight, sympathy, and sterling honesty. Above all, he must be a seer. He should have facility of expression, for a single apt phrase may work an artistic revolution, as did the coining of the term "bald-headed landscape" to scarify the blank-sky abortions that too long satisfied the unseeing landscape worker.

Ultimately, the critic of photography will rank with the critics in other fields of artistic endeavor, and will use the same standards. He will compare the work before him with the best of which the process is capable, and will condemn what falls short. At present, however, he is beset by certain difficulties that are not fully realized by those who criticise the critic adversely. If he is not to quench the smoking flax of aspiration, he must judge leniently, and compare individual works with the achievement of today, rather than with the ultimate possibilities. And, while individuality and originality of thought are so rare among photographers, he must praise these qualities beyond their real worth, must exaggerate their value to encourage their growth. Thus, he praises as exhibition prints many things which he could not recommend anyone to hang as home decoration or as "pictures to live with." He places more value upon an original effort that may be faulty in many particulars than upon commonplace, tame work that is free from faults.

*Of Photo-pictorial Politics*

a few words must be said, though to touch them at all is to invite misunderstanding and opposition. The one thing needful, as it seems to me, is the broadest possible catholicity, and the breaking down of all artificial barriers. The aim of an exhibition's management should be to obtain a strong, broad-minded board of judges, and to obtain entries representing every school and phase of pictorial effort. The aim of the exhibitors should be to support every exhibition that is on honest, catholic lines, regardless of whether any other exhibitor or school or society does or does not give it support. I know that great success has been achieved, and notable work done for photographic art on other lines, but the conviction remains that the broadest possible freedom must be the ultimate aim, that the best presentment of photography can only be gained by the selection of work from the whole field. We shall never place ourselves truly before the artistic world until faction is obliterated, and until exhibitions realize that they cannot afford to omit a work good enough for their selection committee merely because it may happen to be shown at another place at the same time.

In conclusion, may I repeat what I have often said to other meetings? I believe that there are in this room half a dozen people who have not yet taken up pictorial work, but who, if they would give as much time to it in the next five years, as many a man gives to golf, and many a woman to needlework, might take a position in pictorial photography higher than that of anyone save six or eight leaders in the present day. This I do believe most sincerely. And I believe photography to have such enormous possibilities in the pictorial direction as even painters and sculptors may envy. May it be part of the lot of many here to help in the realization of these possibilities.

The sculptor, the painter, the photographer, *they* may be artists, and their works may be works of art; but if so, their work is artistic because they are artists, not because of their respective use of marble, paint, and dry plate. Art is in persons, not in things or mechanical actions. It is time that the vulgar notion that art and painting are one and the same thing were destroyed. Art is an old polygamist. He has married many wives in his time, and each has brought him forth children, not omitting his new bride—photography.

## THE DEVELOPMENT AND AFTER-TREATMENT OF GASLIGHT PAPERS.

BY T. THORNE BAKER, F.C.S.

PRACTICALLY all developers which are in common use for bromide papers can be employed with equal success for gaslight printing papers, writes Mr. T. Thorne Baker in a contemporary, but it may be taken, as a general rule, that they are required more concentrated, and to contain as little bromide as is possible. The chief beauty of a gaslight print lies in the exquisite "blue-black" tone of the blacks, and yet how seldom does one see these in the prints made by amateur photographers. There is a peculiar velvety look in these blue-blacks which, like the actual tone, cannot be obtained with any other class of paper, and how to ensure producing prints with these characteristics we shall now proceed to describe.

Amidol and metol-hydroquinone are

the most popular developers for gaslight printing, and rodinal and aristo-edinol are, perhaps, the most successful one-solution concentrated developers.

The amidol developer will be found quite as good as any other, provided it be used when freshly made, and that the sodium sulphite with which it is prepared is of good quality and fresh. The proportion of amidol to sulphite should be ten to one for brilliant prints, the formula running thus:

| | |
|---|---|
| Water | 10 ounces. |
| Sodium sulphite | 480 grains. |
| Bromide of potassium | 2 grains. |
| Amidol | 48 grains. |

The first-mentioned three constituents should be made up first, and when all the sulphite is dissolved, the amidol should be weighed out and added, and the solution stirred with a clean glass rod until *it* is quite dissolved. If the developer be used whilst any small particles of amidol are undissolved, black spots may be caused in the prints.

Although it is often stated that an amidol developer will keep for three days, we strongly recommend small quantities only to be prepared, just before use, so that it is absolutely fresh. Sulphite soon becomes oxidized, and will then be incapable of preserving the whites from discoloration, whilst the image itself will be mealy and lack brilliance.

Metol-hydroquinone can be obtained almost anywhere and will be found to work satisfactorily with all makes of gaslight papers. The real advantage of this developer lies in the fact that it embodies the qualities of two such different developing agents, viz., metol and hydroquinone, the former supplying gradation and the latter contrast. We do not mean to suggest that the proportions between the two should be modified for each individual negative—this is by no means necessary. But if we prepare two solutions, one containing the hydroquinone, and the other the metol, it can be arranged that a mixture of equal parts of each will give a normal "M.Q." developer, whilst the metol used alone will give a developer capable of negotiating harsh negatives.

The following is a reliable formula, and is given by one of the largest makers of gaslight papers:

| | |
|---|---|
| Metol | 10 grains. |
| Water | 10 ounces. |
| Hydroquinone | 30 grains. |
| Sodium sulphite | 350 grains. |
| Sodium carbonate | 350 grains. |
| Potassium bromide | 3 grains. |

Suppose now that we divide this up into two solutions as follows:

A.

| | |
|---|---|
| Hydroquinone | 30 grains. |
| Sodium sulphite | 150 grains. |
| Sodium carbonate | 150 grains. |
| Potassium bromide | 2½ grains. |

B.

| | |
|---|---|
| Metol | 10 grains. |
| Sodium sulphite | 200 grains. |
| Sodium carbonate | 200 grains. |
| Potassium bromide | ½ grain. |

A and B are each made up with five ounces of water—mixed together, they give us the original formula; B used alone, we get a far softer picture than could be got when using equal parts of each mixed.

If bluish blacks are wanted, it is a good plan to leave out the bromide altogether in a metol-hydroquinone developer, and to add it in the form of a ten-per-ecnt. solution. You can then find by experiment what is the least quantity that may be used in order to ensure purity of the whites; this minimum quantity will enable you to obtain the "bluest" blacks.

In very cold weather always warm up the developer to about 60° Fahr., as an M.Q. solution cold will never yield such rich prints as it will if at a moderate

temperature. The measure containing the developer may be stood in a jar containing a little warm water, and the developing dish itself may be rinsed occasionally with warm water also.

Sometimes, but fortunately not often, an inferior gaslight paper may be come across which will stain yellow during development; all gaslight papers are liable to do this if left for an unduly long time in the solution; the only preventive is bromide, and, as already pointed out, the "blacks" will lose their "blueness" and become greenish if an excess be present.

The metol-hydroquinone developer, then, is eminently satisfactory under ordinary conditions, *i. e.*, with correct exposure and about thirty seconds' treatment. Where a soft print is desired, or a harsh negative is being printed from, two courses are open: one is to dilute the developer with one, or two, equal volumes of water, and to slightly prolong exposure; the other is to use the B metol solution as quoted above. It is worth an experiment to see which is better suited to the particular make of paper you are using, as all brands do not behave quite alike.

Washing between development and fixing is undesirable. Development is so rapid that it should be stopped immediately, and for this we cannot do better than use an acid fixing bath, the acidity of which instantly arrests the action. A good bath may be made as follows:

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|---|---|
| Water | 20 ounces. |
| Hypo | 4 ounces. |
| Acetone sulphite | 60 grains. |

The prints should be left in this for at least seven minutes, and preferably ten; they are then washed in the usual way.

As an alternative to this bath, we give the following stock solution formula; an ounce of this is mixed with a pint of water in which has been dissolved four ounces of hypo:

*Stock Solution.*

| | |
|---|---|
| Sodium sulphite | 2 ounces. |
| Water | 10 ounces. |
| Sulphuric acid (pure) | ¼ ounce. |

The acidity of such baths as these given clears the film of the slight sediment which is deposited during development by a metol-hydroquinone developer. It also keeps the whites perfectly pure.

A word of caution may well be given in reference to fixing. Gaslight prints are so delightfully simple to make that we often print a dozen or more at a time within a very few minutes, and place them one after another in the fixing bath. The result is they all stick more or less together, and do not by any means get perfectly fixed. Always keep the prints well separated; it is important that gaslight prints be fixed as rapidly as possible.

Lastly, a few words may be said with regard to toning gaslight papers. The production of warm tones by development cannot be discussed on the present occasion, and we are referring to separate toning of the prints after they have been fixed and washed. The sulphide method answers very well, as does uranium and copper ferrocyanide (Ferguson's bath). A method suggested a year or two ago, which found much favor at the time, consists in first bleaching the prints in a solution of mercuric chloride and ammonium chloride (sixty grains of each in two ounces of water), and then, after an intermediate wash, redeveloping with a three in twenty solution of hypo; the resulting prints are sepia in color, and quite easy to obtain.

Generally speaking, when toning is to be resorted to it is better to use bromide paper in the first place; but the harshness of a gaslight picture can always be

modified by converting the blacks into sepias or browns, and hence for the sake of softening gradation it is sometimes desirable to take refuge in toning.

One word more, in reference to the black marks and scratches which appear at times on the surface of glossy gaslight prints; these are due to stress in the reeling of the paper at the factory, and can always be removed by rubbing the *dry* print firmly with a wad of absorbent cotton wetted with wood alcohol.

## UNAUTHORIZED USE OF PHOTOGRAPHS.

THE following interesting decision of the courts on "The Unauthorized Use of Photographs for Advertising or Trade" appeared in the May number of *Bench and Bar.*

The Appellate Division in the First Department, N. Y., in the recent case of Wyatt *vs.* McCreery, has declared constitutional section 2 of chapter 132 of the laws of 1903, which gives to a person whose name or portrait is used for advertising purposes or purposes of trade a right of action for injunction and damages, unless such use has been authorized in writing.

The complaint in this case alleged that defendant had unlawfully sold photographs of the plaintiff. Defendant set up that the plaintiff was an actress, and had made an oral contract with a photographer, whereby, in consideration of taking her photograph at a reduced price, he should have the right to sell and dispose of copies of the photograph.

On appeal from an order sustaining a demurrer to this defence, the only question raised was whether the act was in contravention of sections 1 and 6 of article 1, of the New York State Constitution, and of section 10 of article 1 of the fourteenth amendment of the Federal Constitution.

Acute interest in this question of the right to use the portrait or name of a person without his consent for purposes of advertising and trade was first aroused, it will be remembered, by the case of Roberson *vs.* the Rochester Folding Box Company. It was there held that the plaintiff, whose portrait had been used for advertising a certain brand of flour, was remediless by the common law, but the court suggested that a remedy might be provided by statute. In consequence of that suggestion, the act above mentioned was passed, giving both civil and criminal remedies.

The court in the case of Wyatt *vs.* McCreery (supra) holds the act constitutional so far as the civil remedies are concerned. In answer to the suggestion that the act constituted an unwarrantable interference with the freedom of contract, Mr. Justice Ingraham, who wrote the opinion, observed as follows:

"It has always been recognized that the liberty of an individual, which is protected by both the State and Federal Constitutions, is not to be extended so as to allow an interference with the liberty or rights of others, and while each individual has the undoubted right to dispose of his own property as he pleases, so long as such a disposition does not interfere with the rights or property of others, his right to contract is necessarily restricted when its exercise is inconsistent with the right of other individuals.

"No one would dispute the right of each individual to dispose of his own portraits or photographs as he pleases, and the validity of any restriction as to that right may as well be doubted; but

the right of each individual to dispose of and use the portrait or photograph of another is necessarily subject to the right of the person whose portrait or photograph is in question to control the use that is to be made of it.

"There certainly can be no inherent right in every individual to use without restraint the portrait or photograph of another without regard to the wishes of the person whose photograph or portrait is used."

This reasoning, in our opinion, fully answers the objection to which it was directed, and shows that that portion of the statute in question in the case under consideration does not violate any constitutional provision.

In a still more recent case, the Court of Appeals has pronounced the act constitutional in all its parts (Rhodes *vs.* Sperry and Hutchinson Company). This case, like the Wyatt case, was an action for an injunction restraining the use of plaintiff's portrait. The use consisted in exhibiting photographs of plaintiff in various poses, as premiums, which would be given in redemption of trading-stamps. Judgment was given for the plaintiff on the merits, and the judgment of affirmance by the Appellate Division was confirmed by the Court of Appeals.

While the case did not call for any decision as to whether that part of the statute was constitutional, which makes the forbidden act a misdemeanor, the court examined that question, and gave its unanimous opinion that such provision was within the Constitution.

In answer to the contention that the act deprived persons who had acquired pictures before its passage of rights with respect to the same which they had when they purchased the pictures, the court said that the act was wholly prospective, and did not in any way affect rights existing when it went into effect.

An attempt has been recently made under this statute to strike at the freedom of the press. In the case of Moser *vs.* Press Publishing Company it was alleged in the complaint in substance that defendant had without written authority published plaintiff's portrait in its newspaper, the New York *World*, on a certain day, and had sold several hundred thousand copies thereof "for purposes of trade."

On demurrer it was held that the complaint did not state a cause of action under the statute above referred to; that a single publication in a newspaper of the portrait of an individual in the manner indicated by the complaint in that action was not such a use of the portrait as was intended to be prohibited. Judge Betts, in his opinion, uses this significant language:

"If the publication of a portrait can under this statute be prohibited in a daily newspaper, the publication of a name could also be prohibited without such written consent having been first obtained; so that the publication of a daily newspaper in this State, showing and giving an accurate account of occurrences throughout the civilized world, would be an impossibility, as no publishing corporation would undertake to successfully defend the numerous lawsuits that might deluge them if the persons within this State whose names were published (without their written consent) in each issue asserted their rights under this statute."

Obviously, this is the only possible interpretation of the statute, and yet the line of distinction is a narrow one. The unauthorized publication and sale of the portrait of an individual, by itself, is unlawful (Wyatt *vs.* McCreery, supra), but the publication and sale of such a portrait in a public newspaper in connection with the day's news is not a violation of the statute.

It is a close question, however, and

one which will sometimes have, most likely, to be settled by the courts, whether the unauthorized publication in a magazine of the portrait of a person apart from any "story," but not for advertising purposes, is prohibited by this statute. Riddle *vs.* MacFadden, which involved merely a question of pleading, is inconclusive so far as the construction of the statute is concerned.

## MANUFACTURERS AND DEALERS' EXHIBITS AT THE NATIONAL CONVENTION.

LARGE as it is, Convention Hall, Rochester's largest assembly hall, was altogether too small to display to advantage the splendid line of exhibits the manufacturers and dealers had gathered together. Throughout the week the attendance was very large, much interest was displayed, and on every hand good business was reported. One form of exhibit that repeated itself oftenest was the development printing machine, of which there were some six or eight varieties in operation.

Entering the hall the first display to meet our eye was the booth of

*The Seneca Camera Mfg. Co.,*

who made a notable display of their extensive line of fine hand and view cameras, the latter especially being much admired by the visiting professionals. Mr. F. K. Townsend was on hand and busily employed most of the time pointing out and explaining the many good features of the Seneca line.

*C. P. Goerz American Optical Works*

had an attractive display of pictures made by their various lenses. The greatest attraction, however, at this stand, were the models of the new Vest Pocket Tenax, and the Goerz Folding Reflex Camera. The former, as its name implies, being a veritable vest-pocket camera. Folding into less space than a pack of playing cards, it opens with one movement and is ready for serious photographic work, taking a picture $1\frac{3}{4}$ inches by $2\frac{5}{16}$, and by means of a special enlarging apparatus, 5 x 7 prints can be made with the same ease and speed as contact prints, and from which they cannot be distinguished. The Goerz Folding Reflex Camera is a new departure in reflex cameras which have hitherto been made in the box shape only—heavy and cumbersome. The Goerz Folding Reflex, with the advantage of being able to focus up to the moment of exposure, is scarcely larger or heavier than a folding camera using the same size plate. This camera is made in the 4 x 5 size only and is a splendid example of mechanical construction, as is its vest pocket companion. Representing the Goerz Company were General Managers August Stoeckicht, Otto Goerz, F. Schmid, and Oscar Chouinard, who has rejoined the Goerz forces.

*A. M. Collins Manufacturing Co.*

made one of the handsomest displays in the hall. Their splendid line of mounts was displayed on green panels framed in ivory and gold, and showed up remarkably well. The big crowd always around testified to its attractiveness. Mr. H. H. Collins, Jr., H. Stone, F. H. Godfrey, T. E. Selecman, M. A. T. Gillbee, and J. J. Hood were kept busy with callers, and a very big business is reported.

*Artura Photo. Paper Co.*

evidently had first choice of location, as they had secured the most prominent position in the hall—the raised platform giving them an advantage which they made the most of, the concaved end of the platform being filled with panels showing the work of Strauss, Steffens, Rinehart, Clark, Hoyt, Benjamin, and Edmondson, beautifully reproduced in different grades of Artura. This exhibit alone was a first-class art display and well merited the great attention it received. The Company was represented by President M. A. Yauck, Vice-President Schuyler Colfax, Dr. Early, E. C. Yauck, and an able staff of assistants.

*Ansco Company*

showed a full line of their products and were kept busy supplying the demand for samples of cyko. Their souvenir carnations were also much in request. The company was represented by Geo. W. Topliff, A. C. Lamontte, W. B. Musser, F. R. Leache, C. H. Anthony, and Mrs. S. E. Surdam. There were no complaints here about any lack of business.

*G. Cramer Dry Plate Co.*

had a splendid show of negatives and prints demonstrating the good qualities of their various brands of plates. A display of color screens and results obtained with the new process plates indicates that Mr. R. James Wallace is directing the Research Laboratory of the Cramer Company to the greater advantage of color photography. Of course, Papa Cramer was there as happy and cheerful as ever.

*Bausch & Lomb Optical Co.*

had in connection with their display a notable collection of large-sized portraits that received considerable attention. They were splendid examples of lens work, and speak well for the good qualities of the Portrait Unar. The handsome magnifying glass distributed by this firm was the most sought after souvenir of the convention.

*Voigtländer & Sohn, A. G.,*

represented by Mr. P. N. Kenmitz, their American representative, had an attractive display of optical goods, for which this house is justly famous. The line of new hand cameras—reflex, folding, and stereoscopic—includes some of the daintiest and most beautifully made cameras on the market. Their Heliar Reflex Camera has many valuable features to recommend it for studio use in connection with child portraiture. Another new Voigtländer camera attracting much attention was a convertible stereoscopic and panoramic camera, in which one movement transformed the stereoscopic camera into a twin lens panoramic camera with a supplementary bellows and full-sized finder. Some prints from negatives made with Voigtländer lenses by Dührkoop, Hearn, and Holloway attracted considerable attention.

*Geo. Murphy, Inc.,*

showed a general line of Eagle specialties, Rough & Caldwell backgrounds, and studio accessories. George Murphy, J. G. Lavender, and L. H. Bunker were in attendance, and were generally found doing a heavy business.

*Marks & Fuller,*

of Rochester, had a big show of backgrounds and studio furniture.

*Kilborn Photo. Paper Co.*

had a room to themselves up on the balcony, and showed a fine line of sample prints on their popular Kruxo paper. Their method of obtaining sepia tones

with the first development was eagerly watched by visiting photographers, and the paper was fast making new friends.

*Vote-Berger Co.,*

represented by Mr. King, had on exhibition two of their printing machines fitted with their new adjustable vignette carrier, the simplest device in the market for controlling prints and getting results.

*Taylor, Taylor & Hobson, Ltd.,*

manufacturers of the famous Cooke Lenses, were represented by Messrs. Taylor and Kelsey. Their Cooke Portrait Lens is becoming a general favorite among professional photographers, and good business was done during the convention.

*Defender Photo. Supply Co.*

had a very fine picture display in a room by themselves, and were generally to be found entertaining an interested crowd of admirers of their Argo paper. Frank Wilmott, M. A. Daly, J. H. Gallagher, and an able staff were on hand to see that all inquiries were taken care of.

*Le Bo Company.*

This concern had in Le Bo one of the hits of the convention. To the uninitiated Le Bo is a new self-toning transfer paper, which, after printing, can easily and quickly be transferred to china, glass, watch dials, or any smooth surface. It has a wide application in the professional and commercial field, and is a very useful thing to know.

*J. L. Lewis,*

of New York, agent for Seltona & Barnet printing papers, showed samples of these well-known English papers that aroused much interest.

*W. O. Wood Manufacturing Co.,*

of Philadelphia, made a display of mounts and folders.

*G. Gennert,*

represented by E. S. Kantor, made a display of Ensign Film, Hauff's Developers, and Imperial Plates, and report big business with many new accounts opened. Their Ensign Film is making many friends in all parts of the country, and many visiting users seemed glad of the opportunity of expressing their appreciation of its good qualities.

*Eastern Optical Co.,*

represented by F. Harry Hall and Frank Benson, were showing a very good lens, and report heavy sales.

*Taprell Loomis & Co.,*

had a big display of their well-known mounts and novelties, and always managed to interest a large crowd at their booth.

Last, but not by any means the least, would we mention the display made by the

*Eastman Kodak Co.,*

who shared with the Convention pictures the balcony, where they displayed most effectively a choice selection of prints from negatives by our best workers, printed on Angelo, Royal Nepera and Aristo Platino. These sets of prints alone, uniformly framed, hung, and lighted as they were, made an exhibit that was well worth going many miles to see, and which future hanging committees would do well to keep in mind.

The Eastman Company also showed a mask-cutting machine which they will shortly place on the market. It is a device for producing masks with a higher efficiency and lower cost than they can possibly be produced by hand.

# WILSON'S PHOTOGRAPHIC MAGAZINE

A MONTHLY MAGAZINE FOR PRACTICAL PHOTOGRAPHERS

Founded in 1864 by EDWARD L. WILSON
L. W. WILSON, Publisher and Proprietor
T. DIXON TENNANT, Editor

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## EDITOR'S TABLE.

*Photographic Progress.*—Volume one, number one, June, 1909, just received, is the latest addition to the photographic press of this country. It is an illustrated monthly issued in the interests of the professional photographer and the title defines its scope. Its editors are A. K. Boursault, T. Bedding, and J. N. Laurvik. With such a list of distinguished editors the magazine should undoubtedly progress. We wish them every success.

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ONE of the noticeable features of the Rochester Convention was the large attendance of women photographers, and whose work hung together for the first time made a strong showing. The ladies held a meeting in Convention Hall, on July 23, and formed a Women's Auxilliary to the National Association. Mary Carnell, of Philadelphia, was elected president of the new organization, with M. Estelle Jenkins, of Chicago, secretary. Mrs. G. Kasebier was appointed chairman of the Eastern Section. Miss Katherine Jamieson, of Pittsburg, for the Middle West, and Miss Eola White for the section west of the Mississippi. Considerable business of importance was transacted and plans perfected for mutual advancement.

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MR. H. SNOWDEN WARD, Pesident of the Photographers' Association of Great Britain, will be in this country during the first three months of 1910 on a lecture tour. His new lecture, "The Marvels of Photography," is the best thing Mr. Ward has yet done, and has met with great success on the other side. Photographic clubs and societies would do well to make arrangements for this lecture. Mr. Ward's address is Hadlow, Kent, England.

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"ANASTIGMATICS."—Our readers will remember with pleasure the excellent publication offered last year by the Bausch & Lomb Optical Company under the name *Anastigmatics*. We are in receipt of the 1909 edition of *Anastigmatics*, and find it an improvement over last year's booklet, inasmuch as it is more complete and lists three new photographic accessories. The booklet gives a very clear and brief description of the superior advantages possessed by the Anastigmat as compared with the Rapid Rectilinear Lens, with convincing illustrations. There is also a short article on enlarging which will be of assistance to beginners. Wide angle lenses are included in the new booklet, and splendid examples of the work possible with the different lenses listed are given throughout the booklet.

*Anastigmatics* for 1909 may be obtained from your dealer, or direct by addressing the Bausch & Lomb Optical Company at Rochester, New York, or the branch offices.

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WE have observed that photographers work best in double harness, so we wish to congratulate Mr. L. F. Bachrach, the well-known photographer of Worcester, Mass., on his marriage to Miss Dorothy Keyes, and wish them both many years of much happiness.

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MR. F. W. C. POHLE, Manager of the Free Employment Bureau of the P. P. S. of New York, informs us that he can place the following: Three printers, two receptionists, four all-round workmen, three operators, and several commercial men. For particulars write Mr. Pohle, at 9 W Chippewa Street, Buffalo, N. Y.

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THE third annual outing of the Buffalo section of the P. P. S. of N. Y., was held on Friday, July 16, and was as big a success as its predecessors. Favored with good weather, an enjoyable day was spent at Eagle Park, Grand Island. Boating, bowling, baseball, music, and dancing contributed to make a very successful outing.

By S. H. Lifshey, Brooklyn, N Y

# WILSON'S PHOTOGRAPHIC MAGAZINE

FOUNDED IN 1864 BY EDWARD L. WILSON

VOL. XLVI SEPTEMBER, 1909 No. 633

## A FRESH START.

WITH the beginning of September, business, which is always more or less, generally more than less, demoralized during the summer months, resumes its normal course, and the photographer should be ready to seize the earliest opportunity that offers.

With everybody returning from their annual vacation it is a good time to remind your customers that there is never a better time to have the children photographed than when they are tuned up after a vacation and before a busy school term. A suggestion is the only thing a great many people need. They have the money and the willingness to spend it, but they need to be shown how.

At Coney Island, where there is, perhaps, more money spent per minute than any other place in the world, the opportunities or suggestions are so crowded that there is hardly elbow room to get at the money in your pockets.

In place of the Coney Island "barker," with his raucous, but insistent appeal, the photographer can make his suggestion through his local paper or by means of good printed matter sent out to a special list. There are a thousand and one reasons why people should be photographed, and the more reasons the photographer can suggest the more business will he get.

With the close of the summer season it is to be hoped that the photographer will cut out some of the foolish things he does during the heated term.

Looking over the local paper of a prosperous New England town, supporting, say, three photographers, we find that one of them who does "high-grade photography with artistic posing, satisfaction guaranteed, and no charge for resittings," is prepared to give, "for one week only, a Vienna Panel Portrait, suitable for framing, or half a dozen photos free with one dozen $3.00 photos, any day from August 23 to 28." On the next page we read that "you can save time and money by having your photographs taken at ———studio. One dozen of my $5.00 Sepia or Carbonette Photos, and a $3.00 water-color finished in first-class artistic style, all for $3.00. No extra charge for children."

It is certainly time to make a fresh start and get down to better methods. The man who is offering his fellow-townsmen eight dollars' worth of goods for three dollars is giving them credit for a very small amount of intelligence and holding photography up to the contempt of the business section of the community.

If you are cutting prices and making similarly foolish offers, make a fresh start. Do not be content to keep on making poor work and asking poor prices. Make better work. A determined effort will do it, and get better prices. When the next dull period comes along, and your competitor begins to make foolish offers, go and have a talk with him. He may be open to argument. If he is not, a line of advertising to the effect that quality cannot be cheapened or put into work that is offered at less than half its regular value will do you more good than to make a similar foolish offer.

Make a fresh start. There is always hope for the man who is willing to make a new beginning. Improve your output and increase your income. The men on Fifth Avenue, New York, were not born there. They started in the small towns and worked up. Merit always counts. If you are not satisfied with your work and your business, make a fresh start.

## PROFESSIONAL PHOTOGRAPHERS' SOCIETY OF NEW YORK. LETTER FROM PRESIDENT BLISS.

*Brother Photographers:*

As I begin my duties as President of the Professional Photographers' Society of New York, I do so fully appreciating the confidence which you have placed in me, as well as the responsibilities of the office.

The opportunity to do the best I can is all I ask. I feel it in my heart to make good, and will, therefore, welcome suggestions and criticism. My desire is to enlarge the borders of our Society during the year, and make it more helpful to the individual Photographer. I wish also to do something toward improving our Sections, for I believe that the Sections are the very life of our Society. It is through them that we can gain recognition for our profession. It is through them that we can gain the confidence and esteem of our near competitor, and by practising the great levelling process, equality among men, assisting the less skilled by kindly acts and words of encouragement to reach a higher degree of perfection, many of the evils of today will correct themselves, and by employing such methods we shall be able to raise not only ourselves but our profession in the eyes of the public.

Our aim should be to improve photography in all its branches, to bring photographers together for suggestions, for interchange of ideas, for improvement, for fellowship, and for every just and upright purpose, based on the rock of brotherly love on which all men should stand. We are what we are because of others. We ought to pass along this spirit of fellowship which is the spirit of the true man. A better understanding of the other fellow often improves our opinion of him, and it is with the desire to make you acquainted with him that I shall take up the work of forming new Sections, so that they will touch from Long Island to the shores of Lake Erie, and I wish your earnest and hearty coöperation in this work.

Binghamton Section, No. 8, was organized on March 29. Syracuse Section, No. 9, on June 15. These two cities make important links in our chain of Sections.

Our Society should have the support of every photographer in this State, as it stands back of them not only for all that is good in our profession, but to correct unjust discrimination. In this State we have a law which makes it

illegal to exhibit portraits without the written consent of the subject. During the past winter our Society had an amendment passed by the State Legislature, and we would have been relieved of this oppressive law had it not been for a misunderstanding on the part of the Governor, who refused to sign the bill. This work will be taken up again, and with your coöperation we are bound to win.

Our Society maintains for your benefit a Free Employment Bureau.

I intend to communicate with you monthly, and I should be pleased to hear from you. Send me your ideas and suggestions for the good of our Society.

Fraternally yours,

HARRY A. BLISS,
President.

BUFFALO, N.Y., August 20, 1909.

## THE NEW ENGLAND CONVENTION.

THE twelfth annual convention of the Photographers' Association of New England was held at Mechanics Hall, Boston, Mass., August 3, 4, and 5, and, as was predicted, suffered somewhat in attendance and general interest, owing to its following so closely upon the National Convention.

The proceedings were opened by the President—who was presented with a handsome gavel—introducing the Hon. Elmer L. Curtis, who made a long speech of welcome, which was responded to by Mr. S. M. Holman.

Mr. W. S. Lively then gave an interesting address, and was followed by President Barrows, of the P. A. of A., who gave a long and detailed account of the changes made in the constitution of the P. A. of A., describing very fully the advantages to be obtained from a closer connection and coöperation between the various State and National bodies. A committee was appointed to consider what action should be taken in the matter of affiliation by the P. A. of N. E. The members of the committee were Messrs. Holman, Garo, Evanoff, Parkinson, and Barrows.

President Webster then introduced Professor Alon Bement, Instructor of Art at Columbia University, who talked at length on "Education and Trade Unionism."

Following Mr. Bement, Mr. Webster made the presidential address as follows:

*Ladies and Gentlemen:*

It is a custom of the Association for the President to make an address at this stage in the program, otherwise it would be my pleasure to omit this part of it.

There has been nothing particularly new brought out in photography during the past year that I recall. There has, however, been considerable progress made in developing and improving old ideas and methods. This is an age of progress; one must either go ahead or fall behind. There always has been, and probably always will be, men who are in advance of the general rank and file of the procession in every line of work. There are such men engaged in photography in our midst. They are not only at the top of the profession, but they are also generous, big-hearted men, willing to do what they can to help the other fellow up to where they stand. When you get up to where they are now, they may not be there, having climbed up another rung of the ladder. But never mind, don't get discouraged; keep on climbing.

In what I have just said I have reference to the men who are to conduct our school, the principal topic of which is to be negative making. I hope you have all

come prepared to take advantage of their instruction. I wish to express in this public way my sincere thanks to and esteem for these men in showing their brotherly and fraternal spirit in such a practical manner.

The one who is to make the greatest success in photography must not only be able to make good photographs technically but also pictures as well. In order to do the latter, it is absolutely necessary to know the principles on which pictures are made. You cannot do better than you know, unless it be by accident, and accidents are not apt to happen when you want them to.

Time was when a young man who wished to practise medicine, law, or dentistry would enter the office of some one in the profession he might wish to learn and study under. Today that is all changed, there being schools of law, medicine, dentistry, etc., where all the underlying principles pertaining to that particular profession are taught. In my judgment, the photographs that are to bring the most money to the profession in the future will be made by those who have taken a good course of instruction in art. I would most earnestly recommend every student of photography to include in his preparation for the work a course of instruction in some good art school; not that they may become proficient in drawing or painting, but that they may apply the knowledge thus gained to the making of a picture in their chosen way.

You have learned through Mr. Barrows, President of the National Association, of the change they have made in their constitution, which makes it possible for them to invite the State organizations to send delegates to represent them in a congress of photographers. It seems to me this is a wise move, and ought to receive our approval by our accepting their invitation and electing delegates to the congress. In union there is strength, and no one can tell now what may come up in the future that will need all the power we can muster.

An illustrious townsman of mine, now dead, had for a motto, "Success is a duty." He began as a bobbin boy in a cotton mill, and during his lifetime filled some important positions, having been Governor of the State at one time. I mention these facts to show what hard work, persistence, and the right spirit can accomplish. Another has written that which expresses my sentiments so much better than I can do it that I am going to repeat it here:

"I believe in working, not weeping; in boosting, not knocking, and in the pleasure of my job. I believe that a man gets what he goes after; that one deed done today is worth two deeds tomorrow, and that no man is down and out until he has lost faith in himself.

"I believe in today and the work I am doing, in tomorrow and the work I hope to do, and in the sure reward which the future holds. I believe in courtesy, in kindness, in generosity, in good cheer, in friendship, and honest competition."

The convention adjourned then until Wednesday, August 4.

### Second Day, August 4.

President Webster called the meeting to order, when Prof. Alon Bement gave an illustrated talk on composition.

President Webster called for the report of the committee on the matter of affiliating the New England Association with the National Association, and Mr. S. M. Holman, the chairman, reports as follows:

Mr. Holman: "Your committee of five appointed to consider the proposition of the National Association to become a subservient body to them and pay a per capita tax to them, I beg leave to report

that four out of the five recommend the adoption of the matter. One member out of the five recommends the rejection of the proposition."

Moved and seconded that the Convention listen to the minority report.

The matter was then thrown open to the Convention for discussion, Mr. Barrows explaining for the majority report "that the proposition is that the States shall become affiliated with the National Association, shall in a way become its governing body, of the National body, and the National to then proceed in the best way that the States may dictate in the future."

Mr. Holman, for the minority report, presented his side, the points of which are as follows:

That there are points to be straightened out before it is best for the New England Association to accept the propositions of the National body. That the spirit of democracy will not be displayed, as this new constitution bars an employee from having a voice on the floor or a vote, while in the New England Association they are on the same basis and level with the employer; that from an economic standpoint it is not wise. Mr. Holman stated that he believes thoroughly in the amalgamation of the interests of the New England Association and the National Association, but does not think it wise to adopt the propositions of the National body until they are revised.

After a further discussion it was moved and seconded that the majority report be accepted and the recommendations therein be adopted. Motion carried.

Mr. Hearn read a notice of proposed changes in Constitution and By-Laws of the P. A. of N. E., to be presented to the Convention on Thursday.

Constitution: Article V, Section 1. The officers of this Association shall consist of a President, First Vice-President, Second Vice-President, six State Vice-Presidents, Secretary, and Treasurer. The choice of State Vice-Presidents shall be so arranged that each State and the Maritime Provinces shall have at least one representative.

By-Laws: Article II, Section 1. The officers of this Association shall hold office for one year from the first day of October following their election, or until relieved by their duly elected successors.

Article III, Section 2. The Executive Committee shall consist of the President, First Vice-President, Second Vice-President, Secretary, and Treasurer; this committee shall have charge of the general affairs of the Association, and be empowered to fill any vacancies in the list of officers.

Adjourned until Thursday, August 5.

### Third Day, August 5.

President Webster called the meeting to order, when Secretary Hastings read his report, which showed a paid membership of three hundred and thirty, and finances in a sound condition. Report accepted.

Treasurer Holman then presented his report which read in part: On the first day of January, 1909, my books were audited by your auditor, and he found that we had $2290.33. One year before we had $1818.93, meaning simply this, that at our last year's convention, although several of the photographic magazines and papers, as well as many of our own membership, made very deprecatory remarks as to our attendance, and saying that the convention was a failure and had a blue and pessimistic look, yet it was not a failure in the sense of its educational features or in the sense of an economic convention; that we made last year, in spite of the very hard and distressing financial panic, a clear gain of $471.40. I will confess it was a good

deal to my own surprise and much more so to some of those who looked at things in bluer light than I did. So we feel well satisfied that, when we realize what a stringent financial condition has existed for two years, we have done so well.

This year our paid membership at the door and through the mail in advance is less than last year by something approaching one hundred members. If I remember it rightly, last year there were over four hundred paid memberships, including dealers, stock men, and members, and this year there were 330. I think that is only to be expected, and I was surprised to find that so many had come in. We have had two years of depression, and it very materially affects the class of membership we are composed of. Now, add one more thing to that, the fact that some of us photographers are almost unable this year to meet the stock bills, so we cannot expect them to come in here and pay the expenses of coming to a convention, but it is not through a lack of inclination. On the other hand, I think the Executive Board has offered to the Association this year one of the most unique and one that in its possibilities was most progressive of all the conventions that we have ever held—more offered to you of value. I want to recall to you something that is a surprise to me and one I cannot explain. We have had volunteered such masters of the craft as Messrs. Garo, Barraud, Evanoff, and Hearn. Money could not have purchased their services; if we had offered them money to do this they would have been insulted; but they have offered their services. We asked you to bring two plates, two negatives. Out of all those offers gone out by the hundreds to the New England photographers, just four men came forward and asked for that instruction. There is no man in our midst that cannot learn something from those men. I cannot explain that. I am not scolding, but I think it is the finest thing ever offered to our Association. Mr. President, the economic part I have rendered you in figures, so I will close my report."

Moved and seconded that the Treasurer's report be accepted and placed on the record. Carried.

The prize winners were announced as follows:

*Grand Portrait Class.*—A. A. Bishop, Newport, Vt.

*Portrait Class.*—1. A. A. Bishop, Newport, Vt. 2. Byrd Studios, Cambridge, Mass. 3. Frank R. Barrows, Dorchester, Mass.

*Genre Class.*—1. Thibault Studio, Fall River, Mass. 2. A. A. Bishop, Newport, Vt. 3. Katherine B. Stanley, Springfield, Mass.

*Group Class.*—1. Frank R. Barrows, Dorchester, Mass. 2. W. B. Davidson, Narragansett Pier, R. I.

*Landscape Class.*—1. George E. Tingley, Mystic, Conn. 2. W. H. Manahan, Jr.

*Angelo Prize.*—W. B. Davidson, Narragansett Pier, R. I.

*Aristo Prize.*—Divided between J. H. C. Evanhoff, Salem, Mass., and Thibault Studio, Fall River, Mass.

### *Election of Officers.*

The following officers were proposed by the committee on nominations and unanimously elected: President, W. F. Oliver, Baldwinsville, Mass; First Vice-President, Fred E. Frizzell, Dorchester, Mass.; Second Vice-President, E. L. Byrd, Cambridge, Mass.; Secretary, George H. Hastings, Haverhill, Mass.; Treasurer, Samuel M. Holman, Attleboro, Mass. State Vice-Presidents: Maine, L. C. Gerry, Sanford; New Hampshire, C. L. Powers, Claremont; Vermont, A. A. Bishop, Newport; Rhode Island, W. B. Davidson, Narragansett Pier; Connecticut, J. P. Haley,

Bridgeport; Maritime Provinces, J. Y. Mersereau, Chatham, N. B.

In response to demands for a speech, Mr. Oliver made the following remarks:

*Mr. President and Members of the New England Association:*

I presume it seems very strange to you that you should have elected as your first officer one of whom you never heard, possibly, before two or three months ago, if that, and I can assure you that it seems no less strange to me than to you. My experience in the way of holding office has been limited to a term of one year as field driver previous to being appointed to this office. I do not feel that this election is so much a tribute to what I have done as I do to a guarantee of what they expect to receive from me for the ensuing year, and in that the most I can promise you is to endeavor to bring together an harmonious working of the broadest minds and most willing workers in the New England States. I believe that the photographers of New England, as a majority, have no appreciation of the capacity of their field. We are not alone as compared to other individuals or organizations. I believe it was the Boston Mercantile Club, or some such organization, that recently made a trip to the State of Maine. They came back overwhelmed with enthusiasm in regard to the resources of New England. Now, we have every reason to feel as enthusiastic and optimistic of the resources of New England along photographic lines. My experience of the last two or three months in one particular is something that I wish every one of my hearers, I wish every photographer in New England, might have a duplicate of. It is this: In every instance every individual with whom I have had occasion to talk has manifested a willingness to work. The trouble is not that the New England photographers are not willing to work, it is not because they do not work, it is because they do not know what is necessary to be done. The question is how to accomplish those results, how you want your education served to you, liquid, solid, or how, and one of the propositions I submitted to the Executive Board was for that specific purpose of giving each member attending the Convention an opportunity to express himself or herself as to what form of education would be best suited to their needs, and it will be my endeavor, as President of this Association for the coming year, to begin previous—a long time previous—to the next convention the consensus of opinion throughout the New England States and the Maritime Provinces to find out just exactly what they would like to have at the next convention, and there is no question in my mind but that, if the photographers of New England attend, they will not he disappointed.

Mr. H. A. Collins then gave one of his humorous talks.

After some discussion it was decided to leave the question of delegates to the Second American Congress of Photography and the question of the location of the next N. E. Convention to the incoming board of officers, who take up their new duties October 1, three months earlier than previously. The convention was then adjourned until 1910.

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*Clearing before Intensification.* This is often desirable to prevent a clouding of the clear parts of the negative, and for this purpose the *Photo Revue* recommends the old iron and citric acid bath in rather a weak form, or ferric chloride 60 grams, citric acid 60 grams, water 1000 grams. Ordinarily one minute in this is sufficient, and the plate should be allowed to remain for five minutes in running water before commencing the intensifying process.

## FIRST AMERICAN CONGRESS OF PHOTOGRAPHY.

ONE of the notable achievements of the Rochester Convention was the gathering together of a body of delegates from various State Associations, on the invitation of President Barrows, with the object of affecting a working union between the National and State Associations. The meetings were carried on in a business-like and harmonious spirit and the object in view was advanced very considerably before the Congress adjourned.

Below we print extracts from the official minutes giving the views of the various associations as represented by their delegates.

The States represented and their delegates were: New York—H. A. Bliss, B. F. Puffer; Ohio—C. L. Lewis; Illionis—F. B. Medlar; Michigan—E. E. Doty; Pennsylvania—F. Hornbaker, R. W. Phillips, E. E. Siever; Iowa—C. T. Townsend, J. S. Raney; Canada—F. Jackson, F. L. Roy; Kansas—M. Wolf; Nebraska—Lechinsky; Missouri—F. L. Hammer, Miss Belle Johnson; New England—W. A. Webster, W. F. Oliver, W. H. Partridge; Indiana—F. Schantz; Wisconsin—J. M. Bandtel; Virginia and the Carolinas—M. W. Tyree, Cheney, Homeier; Northwestern Association—Lee, J. R. Snow.

The following past-presidents of the P. A. of A. were present, and were accorded the same rights as delegates as representing the P. A. of A.: W. Kellner, E. B. Core, G. G. Holloway, C. W. Hearn, C. J. Van Deventer, F. W. Medlar, F. R. Barrows, and C. W. Reeves. Thirty-seven delegates and eight past presidents in all.

President Barrows: I think this is a remarkable showing, gentlemen, when you can make an appeal of this kind to the States of this Union and in Canada, and it is possible to assemble such a large delegation of men as this, here absolutely at their own expense, and find on our roll-call so few missing who have been appointed. As stated, if this Congress shall continue, I am sure that the interest manifested in the support of this movement is sufficient evidence from the States of their coöperation. In my report I read you extracts from letters, which were quite long, of course, but give you to understand how the past presidents stand. We will better know, after we are through with this little meeting this afternoon, how our delegates stand. I shall advise you in our deliberations to avoid technicalities. I am not a parliamentarian, and you can readily floor me, but I feel that we are in the hands of my friends, and we are here to see if we can work out a solution for a brotherhood of photographers; something that shall include America; something that shall bring us closer in touch with one another, so that if we may appeal to our brother photographers in remote districts we will be able to reach them; that our National organization, supported by the State organizations, will be enabled at all times to reach remote members of the Union and Canada, and have a successful list of members whereby, by sending out our literature from the National, we may be able to reach all of you. We went to great expense this year, through the suggestion of our hustling Secretary, and got a complete list, through the assistance of the dealers, and sent our literature to every professional photographer in these United States, numbering 15,200.

Secretary: And we got answers back from 5200.

President: If it is possible for us to say to the State secretaries, or make it obligatory in our constitution that the State secretaries shall report the active

members of their State societies to the National each year, we will then have a list of our own, more valuable than that which can be procured through any other source. If we have a movement on foot to draw the States to us, it is possible to reach our members with the literature, and then, if so, go farther, and from the State to the section, which I very much approve of, we will be able to get the remotest parts of this country directly in touch with one head, where we can work in unison and to the betterment of the great body of photographers. The meeting is entirely in your hands, and we will have first the report from our committee on Constitution and By-laws, of which Mr. Lewis is the chairman, and he will read it to you. (See the August issue of this journal.)

Mr. Bliss, New York: I move that the report be received, adopted, and the committee discharged.

President: May I suggest, before the second is placed to that, Mr. Bliss, that possibly before the committee be discharged, that they read the report to which they refer. After you have examined it, then we can discharge the committee and take up the constitution in detail.

Mr. Hammer, Mo.: I believe the acceptance of this report should be the first thing; when and how the committee arrived at the conclusion, and why this report was made. The committee considered this matter ever since last evening about ten o'clock; they were very careful to take into consideration the Constitution and By-laws as provided, and the committee came to this conclusion: That it is no use in organizing a Congress of Photography until every delegate here assembled, and every president, secretary, and member of all State organizations, thoroughly understand the meaning of this proposition, and if you, as the first delegates to this Congress, will go home with copies of the Constitution and By-laws, as we propose to amend them, and explain to your States that that is the purpose and object; there is no use in building an organization in a helter-skelter sort of way, or without any thought or wisdom——and then when the thing is properly digested and your States thoroughly understand what the meaning of this vast movement is, then let all States get together, and so we will organize at the next meeting of this national body an organization that will cover from Maine to California. Let our journals take up this matter; let them take up the Constitution and By-laws as we propose to amend them, and let every photographer read them. We state in this resolution that you go home to your States and suggest the idea of sectional organization. When they are interested in local organization they are interested in the State organization; when they are interested in the State organization they become interested in the organization of the National club we propose to inaugurate. Let us not elect officers; let us not make a permanent organization at this time, but let us take this matter home with us, and let us thoroughly digest it, come to some definite conclusion in our minds, and when we meet next year, let the presidents reappoint you or new members, and then come together with one solid mass of an organization that will be of power and strength in photography throughout the United States.

President: Now I think it is best for Mr. Lewis to read what there is here, before we have any more remarks on the subject, when it will be open for discussion. There may be others here who have a diametrically opposite view from Mr. Hammer's, and we want the expression free and open, if we have arrived at a conclusion; whatever this Congress says goes. We are here for the combined purpose of becoming united; we

are not here to separate and draw apart; we are here to come together, and let us do it wisely. Let there be no rivalry in the whole discussion. Let it be open, sincere, for the best of photography.

Mr. Lewis read the report as printed in our last issue.

President: You have heard this. It is long, of course, but the gist of it is that there is no government of the National over that of the States further than that which includes the regulation of fees and assessments, and the number of delegates to the National. So it imposes no obligation whatever upon the States, but leaves them free to act at their own will. A very important, vital point is that though the State associations, or persons who are members of the State associations, are exempt from the $3 membership fee, provided they bear their credentials from their State, and in lieu of no membership fee, every State pays an assessment of 25 cents per head, which is levied upon each State member, which comes into the National treasury. It will take any one of you men who regularly pay your dues to the National, twelve years to pay the $3, but you will bear in mind that there are a great many people who come to your State associations who do not come to the National; we get the benefit of your State association's 25 cents. On the other hand, it is too early to say that all people who come to the National enrol through the State body, so we have provided for that by stating that any person who is an owner or part owner of a studio may take active part in our association matters, provided he pay $5 annual dues, or the membership fee, which is now paid, of $3. If he comes this year he has to pay his $3 just the same, and if he is a member of your association he is exempt, so that we lose nothing from the straggling member, and you can all have the regular members. So you see, that is really all that is contained in this voluminous report that changes in one iota, except that we are providing for our past presidents. I do not presume to say to you, as Mr. Hammer has said, that we need to be unduly hasty in anything that we shall do. This matter can be discussed; you can ask any questions regarding the report, on which we will be glad to enlighten you, and then say whether we shall at the present time pass it up to the National Association or pass it back to you people to take to your associations, when, as you shall come back from your associations the next time, you will come back legal members of this society. You will understand, as you come to us this time, you are my guests. I have invited you here without any legal authority, only by consent of my Board. We have considered that this was a way we might get you here, and we had no right to pay your way. We are not in position to do so with our delegates either, that we could take money out of our National treasury, and bring forty-six people here and pay their way. Your recompense must come to you from the honor you get as a delegate of your State when you are appointed. In this way we can assist our finance, and by and by we may be able to pay our delegates so that they can travel as they do to Congress; who knows?

The whole claim of this is based on the government of the United States. Each State in the Union has its own laws. In the State of Michigan, my own State, we punish a man by placing him in prison for life for murder. I migrated from Michigan into Indiana, and in Indiana we hang him; that is the choice and the way of punishment in these two States, and yet the National government upholds both of those actions. You can go on and control your States as you will, and the only thing we are asking you is that we shall say how you shall come into the National, and that you will be

subject to this assessment fee of 25 cents per member; that is the only restriction that we are putting upon your States whatever. You are your own master until you come to 25 cents, and then we are your master. Is not that little enough to ask of you? It seems to me a simple plan, and much time and thought has been put upon this. I have asked many of my friends to go into this matter; the committee has gone over it carefully, and their only suggestion is that you give it a little more time, which is perfectly agreeable to me. Now we would like to hear any remarks.

Mr. Hearn: There are two or three things that have occurred to me that I do not know whether they have occurred to you and whether they are provided for or not. One is the matter of alternates. Is that taken care of?

President: It is not now; it would be wise to do so.

Mr. Hearn: It would be a good idea to make a memorandum in reference to that. Another thing is the Canadian boys; how do they stand?

President: That is all provided for.

Mr. Hearn: Is there a National organization of any other country?

Mr. Jackson: The Photographic Association of Canada.

Mr. Hearn: The third thing, Mr. President, is this: It seems to me that we have advanced a great way when we have advanced as far as we have. Now, if you go to work and put this off, as my friend, Mr. Hammer, has suggested, for another year, without having come to some conclusion, we will be absolutely dependent upon another administration, and it seems to me that while Mr. Barrows, who has given the thought and attention to this, is President, and has brought it nearer to fruition than what has been thought of and tried for several years back, it seems to me that now at this convention something should be done, so that the National will have gone on record as having made this move, and invited these different State organizations to come in with us. We have tried State organizations several times, to get them to do something in regard to that. I was an officer one or two years ago in regard to that; Mr. Lewis succeeded me. We found a great deal of trouble with this, and had no chance to get them into the National body because they were not in a receptive attitude. Then, again, the States themselves were not in a condition to come to the National body and present anything. Now, at this gathering here we have some duly accredited delegates, who are instructed by their association to do certain things toward the amalgamation of the State and National. I should say I think it would be a very good plan for us to get some place so that this thing can be done, as far as it legally can be done, now.

Mr. Puffer: I act as a delegate for the State of New York. We have an organization of professional photographers which has been tested and tried for five years. We have several sections, six to my knowledge, and possibly more, in which the local photographers are brought together monthly. We meet each other; we transact business that is of vital interest to each individual in their own local community. Ours is, in many ways, on the same basis, in settling questions among ourselves, as the county takes care of its own county affairs, and I have seen in our chairman's report a comparison of the P. A. of A. to the Federal Government, and its children, the States, compared to our State societies, and so on down, and I add the comparison of our local sections to the counties. We have an organization which is built on that basis and succeeds on that basis because of the interest and the stimulus given through these monthly meetings.

Mr. Goldenham: I wish to speak the sentiment of the Northwestern Associa-

tion. We have been looking forward to a movement of this kind for the last two years, and I wish to say that this is not a newly organized affair which has been going on for some time; I wish to say that much for the Northwestern Photographers' Association, that you can count on us.

Mr. Townsend, Iowa: There is only one thing I see in objection to this. I am in favor of rushing the thing through just as well as any of you. I think we ought to be conservative. There is one clause, in regard to the tax: It means a tax of $25 on my association every year. Now, if something could be done with that clause I think the thing would be more satisfactory to the photographers of Iowa. For instance, it places a hardship on us in this respect, that we are so far away from the photographers' association, generally held in the East; it means that it would be 100 to 150 photographers that will not attend. We have an association of about 200—150 of which will not be at the National convention; a tax of 25 cents apiece, would be something like over $25 from our State.

President: I will explain to you that it is not an additional tax to your people, but that it shall be taken out of your funds.

Mr. Medlar: As a delegate selected from Iowa, I have to say that if we feel that it will be too great a tax upon the association, I will guarantee the tax personally.

Mr. Townsend: I do not want to go back to the photographers of Iowa and say that we are railroading this thing through. We do not know what would be the result if we would go back to our State and say, we have you taxed up $25 each year. I know the boys from Iowa, and there are many fellows who will kick on it. I will give $25 myself if necessary, for I am in favor of putting this thing through, but I know the sentiment of my people. I would like to go back and say to them, if this is agreeable to you, we will do it, and next year report on that.

Mr. Lewis, Ohio: It is the misfortune of some people to have to go through life misunderstood. For fear that your committee might suffer that same misfortune, I am going to read this again; you do not understand it.

(Mr. Lewis re-read Committee report.)

Ohio says "Yes" to this.

Mr. Bliss, New York: New York says "Yes." I do not believe we should be too hasty in this matter. I believe that we should go back to our State societies, entering into the spirit of organization with all our heart, and then come here next year and formulate, plan, and amend your "A. P. A." constitution. (Applause.) Let me tell you, brothers, that I do not believe that we have really a right to formulate a plan here governing something that only exists in a small manner in the different States. This is what I wish to make plain. First, organize; then get further organized in sections or not, it makes no difference. Where is there a word in the constitution that you propose that says, What are you doing to do for the different States? What is the National Association going to do toward strengthening the different States? No; it says that we are to tax the different States 25 cents a man; that is the only thing that you have in there. The States shall govern themselves in all manners pertaining to their State business, except as to the fee of 25 cents, and as to the number of delegates which shall be allowed them to attend the National Association. And what does the National Association intend to do for any of the States? Absolutely nothing but take your money and dictate to you as to how many representatives you will send. Brothers, I am in sympathy with that movement, and believe it is a step in the right direction.

We are coming to it, but do not be hasty; let us go slow. Let us go home and place this matter seriously before the different State organizations, and let the different members have a voice in the making of laws that will cover them. Do not fall into the pit which was practised over a century ago where the Colonists rose and rebelled against having taxes placed upon them, and laws to be enforced, where they were not given a voice; just as sure as you do, the different States will rebel, and all this work will be for naught. Let us strengthen the foundation by the cement of brotherly love, and build a strong foundation for the sections, the State and the National society, but do not try and amend your constitution until you have a solid State organization. New York State has six different sections and over 325 members, and I can pledge you that if you will go slow into this matter and give those members an opportunity, they will be heart and soul with you in this movement, in any movement which tends toward the uplifting of our beloved profession.

Mr. Pratt, Ill.: I am a member of the delegation from Illinois, and have had this proposition before the State membership, and the delegation of Illinois is in favor of this proposition of your committee.

Mr. Phillips, Penna.: Pennsylvania looks forward to an organization of photographers which eventually will be a representative body of representatives from the States, sending delegates to the National body for control of the laws. Any move which tends toward that end is a movement in the right direction, according to Pennsylvania. In regard to these recommendations, or this report of the committee, I cannot see, from my hasty hearing, or the hasty reading, but what it is a step in the right direction. There seems some objection to taking it up now, but I cannot see why it is binding the States this year to do anything. It is really practically giving the States a year to digest the subject that they have had forty years hanging over them to digest. Now, whether the States are ripe for that, whether there are enough men represented in delegates here at this meeting to take absolute and final action, and make an absolute organization and control the States, control the National, it is a big thing to do in two meetings, and in my hasty judgment I would feel like recommending the recommendation of the committee.

Iowa Delegate: We stand in favor, I think, at the present time. I want to make one point, and that is that this is going all right as far as it goes, but it is not doing enough for the States. It is doing a great deal for the National, but it is not agreeing to do anything for the States.

Mr. Lechinsky, Neb.: This question has gotten hold of Nebraska, and has had for four or five years. We have even gone as far as sending delegates to the National about three or four years, and they pay somewhere about $100 expenses coming and going. They bring back to us something good from the National, and we do derive some benefit, but as it was rather expensive to pay as much as that, we have abandoned it for next year, not for all time, but just while our treasury was not in its full swing we had to prevent it. Furthermore, I differ a little from the brethern that think they will not derive anything from the National. When the National asks us to contribute a certain amount, I think that we have a right sometimes to ask of them what we may need. We may need the support as a whole body, coming before the Congress of the United States to enact some certain laws which may help us, which we shall not have to pay $25 or $50 for.

President: Here is Miss Belle Johnson, of Missouri.

Miss Johnson: I think Missouri is heartily in favor of this movement to submit it to the National Association.

President: We now come to New England; as we have heard from Mr. Webster, we will take next in line, Mr. Oliver.

Mr. Oliver: One point came into my mind. As the President says, that this new plan was to put the P. A. of A. in the same position with its State societies as the States in this country are, I about made up my mind that there is but one United States of America, and it is good enough for most of us, and the liberal action of the Canadian members, as mentioned by a recent speaker, shows their sentiments, and the question came to my mind, why the Photographers' Association of America should have but one name. New York has a Buffalo section, and there are other sections. Why should New York not be the New York Section, or some other name, or branded by the P. A. of A.

Mr. Larimer, Ind.: It seems to me that the argument is all in regard to delay. Certainly that report is couched in plain English language, which means just what it says, while the majority of the argument has been on something not connected with it at all. I do not believe it is even our business to decide the constitution of the Photographers' Association of America as to when they are to pass this. I believe we can say for Indiana, put it up tonight and vote "Yes." I imagine some might be adding to that a point in regard to the States; for instance, those who paid the per capita tax and accepted of the constitution, that they would be given a charter of some sort. States that accepted that proposition to come in as a homogeneous body with the National Association should be given some charter; if they fail to comply with the rules laid down and the assessments, they might lose their charter. I have no doubt that the Indiana Association are bodily in accord with this move.

Mr. Bandtel, Wis.: We are all members of the National organization. We are all members of State associations; that is why we are here. Now this movement is not a new one. In 1901, I was honored with the election to the office of Secretary of our State Association, and in that year I had considerable correspondence on this subject, because I then saw the need of a better organization of the photographic profession in America. Letters are on record to the Illinois State Association dating back to that time and since that time. In 1902, 1903, 1904, 1905, 1906, 1907 the officers of State Associations met together with your meetings, but they were State Association officers only. We had no invitation from the National organization or from an officer of the National organization, but the need of a closer union of the States was felt at all times of these years, and if we had an organization in America such as we need, such as we are now trying to bring about, I can say to you, brother photographers, that our friends in New York City would not have had the hard time coming down to Washington just to get a provision in the copyright laws of our country. There are other things, legislation in our States, legislation in our National organization and National government that is going to be of vital interest to the photographic profession, and it is our business to bring about closer association of the State Associations and of the National organization. To give you an idea as to what Wisconsin Association thinks of this movement and its possibilities, I will say that for three or four years Wisconsin Association has sent me as a delegate to the National Convention, and they thought so very seriously about the matter that for two or three years they paid my expenses out of the State Association treasury. When they were

willing to go down into their State Association treasury and pay my expenses to go to the National Convention with the intention of promoting coöperation of the State organizations with the National, it shows that they want this matter to go through, and are going to be a part of the movement as soon as we have it in operation. We are not here to make laws for the State or National Associations, but we are here to recommend tonight a revision of the Constitution and By-laws of the National organization. We can take no definite action in the National Association tonight, but we can discuss this recommendation and revision of the National Constitution and By-laws, and at tomorrow's session we can take it up and change the whole entire National organization.

Mr. Cheney: I would say for the Virginia and North and South Carolina Associations that we stand ready to back up any movement to further the interest of the Photographers' Association, and as States and National, I think that it is unfortunate that this matter has not been given a little more publicity through printed matter, which might have been sent out. I assure you that I came here, and I was not very familiar with this thing myself, and I am surprised at the speeches I have listened to, because a majority of them sound like intellectual men, and yet the difference of opinion advanced appears to me conclusively that we do not understand the subject; yet after the second reading by Mr. Lewis, the thing was very clear to me, and I will assure you I was as much at sea as anyone else.

Mr. Snow: I think I can say for the Northwest that we are heartily in favor of this movement, and that we will do all we can to help push it along.

(President asks Mr. Bliss to take the chair.)

Mr. Barrows: The original motion has been made that we shall adopt this. Would it not be well to place an amendment to this which shall say that we will change our Constitution and By-laws to conform with State regulations to be enacted next year through State delegates; then no one can raise the question. Does that please you, gentlemen? Can we not say that we will at this time take action; that we will next year change the Constitution and By-laws instead of passing it through this year? Place that before our meeting tonight, and let them have that as our argument. It is not to take it out of the convention's hands, because we can make that our report for tonight's discussion. (President Barrows resumes chair.)

Mr. Pennell, Kansas: I think I can say for Kansas today that we are in favor of the motion as it has been stated.

President: The motion is that we accept the report of the committee, including the draught of the new constitution, and that their entire report be sent to the meeting of our National body tonight with the recommendation of this Congress that it be adopted.

Seconded and carried unanimously by rising vote.

President: Before we close, I would like to have an expression from the house to know whether we have really accomplished anything this afternoon. I wish some gentlemen here would put it to you people to know whether you are satisfied with the work we have accomplished. If we are not satisfied with that which we have accomplished here, we will never be able to have any Congress, and so I would like, in some way to get an expression from you as to whether you are in sympathy with this movement or not.

Mr. Bandtel: So far as I know the seeds which have been sown for six or seven years are now beginning to sprout and grow nicely, indeed, and I am

satisfied with what we have accomplished today.

Mr. Lifshey: This is the first Congress of Photography, and I want to congratulate you on what you have done today. I have been looking forward for a number of years, at each convention, to see if the Presidents of different States would come together and talk. But this is the first time that we have accomplished something that will go on record in the foundation of a new National society, and I congratulate you all.

Mr. Holloway: Mr. President and Gentlemen: First Congress of America: I congratulate you. I believe we have taken a step at the present time that will be far reaching. We may not see what we have done, but I want to call your attention, and many of you will agree with me, to the fact that the interest in State associations all over the country is gradually waning. We find it in our Banner State of Indiana, the State which has accomplished so much, that interest is waning, and the time is coming, and not far distant, when you, as State organizations, will have to rely upon the National for support. I believe that this movement started out will be the means of drawing closer together that little band of workers in the different States interested in the conventions. There are many photographers who attend State conventions once in a while, and then no more, but those few who do attend year after year want the assistance of this National organization, of this Congress of Photography, and I believe when we leave this hall today we will leave it in the spirit of good humor. Those of you who have not had your way today come into the fold, and let us all be brothers.

## NEWS AND NOTES.

*To Loosen Stoppers.* When a stopper is stuck fast in a bottle, so that it cannot be got out by ordinary means, the following methods should be tried, in the order in which they are given, as each is more drastic than the one before it, and therefore more likely to result in smashing the bottle. (1) Hold the bottle firmly, and tap the stopper alternately on one side and the other with a piece of hard wood, giving the taps an upward tendency if possible. (2) Hold the bottle horizontally over the sink, and pour a gentle stream of very hot, but not boiling water, on the neck where the stopper touches it. After a moment or so of this, put the bottle upright, and give the stopper a tap or two as before. (3) Take a long piece of thick string, pass it once round the neck of the bottle, and get a friend to hold one end, while the other is tied to some firm object. Then while the string is tight run the bottle quickly backward and forward along it. The friction of the loop of string will make the neck so hot that the stopper will soon be loosened.

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*To Strip the Film from Celluloid Negatives.* First, immerse the film in the following solution until, on gently testing it with the finger tip, it is found to peel away from the celluloid support:

| | |
|---|---|
| Caustic soda | 20 grains. |
| Formalin solution | 20 minims. |
| Water | 2 ounces. |

When this state has been reached, remove the negative and place it in a bath of—

| | |
|---|---|
| Hydrochloric acid | 50 minims. |
| Glycerine | 50 minims. |
| Water | 2 ounces. |

The film can be transferred in this solution from the celluloid to a suitable glass or other support.

By S. H. Lipshey, Brooklyn, N. Y.

By S. H. Lifshey, Brooklyn, N. Y.

By S. H. Lifshey, Brooklyn, N. Y

By S. H. Lipshey, Brooklyn, N. Y

By Charles W. Jerome, Minneapolis, Minn.

1. "At the Piano"
2. " The Music Lesson"
3. "At the Seashore"
4. " Madame Marisot and Daughter"

*Illustrating Sidney Allan's Article*

5. "The Breakfast"

6. "On the Terrace"

*Illustrating Sidney Allan's Article*

7. "Portraits of Children of M. Caillebotte"

8. "Outing of Canoeists"

*Illustrating Sidney Allan's Article*

# MASTERS OF PORTRAITURE—AUGUSTE RENOIR.

BY SIDNEY ALLAN.

Of the modern French painters, Auguste Renoir seems to be the most difficult to understand. His steadily increasing reputation has been to me for many years (as Sir Purden Clark would put it) "one of the tantalizing mysteries of art." Although acquainted with his work since my first sojourn in Paris in the eighties, I have learned to appreciate it only very recently. I now consider him to be one of the few great Impressionist painters, who, perhaps better than any other exponent, sums up the ideas and methods of the school.

As a painter Renoir is, above all else, a colorist and texturist. His color sense is exceedingly capricious. He indulges in the most unusual combinations and contrasts, and seems to be particularly fond of the juxtaposition of bright pinks and blues, of dazzling yellows and greens. He somehow manages to extract a harmony out of these apparently crude dissonances. Still more remarkable he is as a texturist. He continually changes his technique, and apparently invents a new method of laying on his color for every subject he represents. Many of his pictures show three or four varied techniques; in some parts the paint looks thick and pasty, in others it is sketched in in broad strokes. Certain passages are laid in with the pallet knife, while others are defined by minute cross-hatching. The structural character and surface quality of each subject seems to determine his textural treatment of color.

Little of this can be appreciated in black-and-white reproductions. We may feel that this painter is peculiar in the matter of optical sensation, but the rich consonances of his color are lost. Of the textured excellence, only the delicate juxtaposition of lines is discernible. We detect that the planes are broken up into numerous minor contrasts that lend a certain vivacity and brilliancy to his pictures.

The choice of subjects, or rather the way he handles figures and places them in space, is what interests us most. Renoir has never been a specialist; he has painted nudes, mosaics, flowers, still life; but, I believe, he is most accomplished in his delineations of children and figure representations, which, in many instances, are simple portraiture. He is not a subject painter, and generally displays but little imagination. All the poetry he has to convey is in his "paint."

Glancing over the accompanying illustrations, we are struck by a certain awkwardness and irregularity. There are no elegant forms or outlines. Our eyes are offended by a certain carelessness of drawing and exaggeration of commonplace detail. We find it difficult to get the correct viewpoint, and almost come to the conclusion that this artist purposely studied and accentuated the ordinarily least attractive elements. Renior, of course, prides himself on being a realist. He strives to represent in an exact manner the petty detail of a figure and its environment. He simplifies the forms, but never idealizes them, and is not repelled even by the trivalities of life. His sole ambition is to render objects precisely *as he sees them.* In this respect his art is almost photographic, and in a way representative of an ideal of photographic portraiture, inasmuch as the artist of the camera is forced to find something pictorial in

every subject, no matter how humble, fearfully commonplace, or downright ugly it may be.

Beautiful proportions and contours, easy and graceful action, and interesting features lend themselves more readily to harmonious compositions than figures which lack these qualifications. And it is one of the principal merits of Renoir's work that he can make a picture of the simplest material.

Notice how uninteresting the dresses of the two girls are in the "Music Lesson" (Fig. 1), the clumsy shape of the piano, and the frugality of the interior. Neither do the faces represent any fascinating type, and the hands surely lack every vestige of elegance. And yet the composition is exceedingly well balanced. The light and dark masses are clearly and skilfully divided, and the space is well filled. The vase with flowers forms an important feature of the composition, as it gives a certain swing of lines to the figures.

There is an abundance of detail in this picture, as well as in the other version of the same subject (Fig. 2), and yet the accentuation of interest is distinctly where it should be—in the faces and hands. Not even the prosaic piano stool, in Fig. 1, and the detail of chair and candle holder, and the impressionistic fragment of armchair and music sheets, in the lower right corner in Fig. 2, distract the eye from the principal points of interest.

The background in the reproduction (Fig. 3) looks almost like a "painted-in" background. It is a trifle undecided and too carelessly handled, but it has the merit of being in correct light relations with the figure. The face shows hardly any modelling at all; it owes all its expression to line and contour. The pose is natural and graceful. Remarkable, again, is the handling of the chair, which, despite its size and elaborateness, does not make the impression of being too conspicuous, something that rarely occurs in photographic portraiture.

The portrait of Mme. Morisot, the French pastel artist, and her daughter (Fig. 4) strikes me as being rather conventional. The figures look posed, and, although the pose of the girl sitting on the arm of the chair is quite natural, there is a strange absence of interest in the relation of the two figures to each other. The folds in the sleeve of the mother are painfully crude, but teach the lesson that even an awkward shape can be made pictorial by handling it in a somewhat precise manner.

Figs. 5 and 6, "The Breakfast" and "On the Terrace," are generally conceded to be two of Renoir's masterpieces. Fig. 5 is an excellent group. The triangular relation of the heads dominates the composition. The pyramidal shape in a group of three is invariably effective. The table with its diagonal tendency of line produces an interesting shape, and the Japanese mannerism of letting one of the boundary lines of the picture cut into a figure, showing only a fragment of it, gives the picture a decided modern note. The hands of the woman are black and shapeless, but well managed in values. Few photographers would be able to place a hand behind a white dress without making it obtrusive. The details of the tableware are treated in a masterly manner, as are the hands of the man. There is a certain air of tranquillity, ease, and natural poetry about this picture which is delightful.

Fig. 6 is particularly interesting because it shows how the Impressionist school has profited by photographic delineation. There is the usual abundance of details, but all interest concentrates upon the beautiful face of the older girl, which is the only part of the picture that is clearly defined—in focus, as one might say. All the rest is blurred, even the face of the little girl, and

objects become more and more indistinct toward the outer edges. The hands of the little girl are entirely too small. Renoir often commits errors of drawing; notice, for instance, the perspective of the piano in Fig. 2. The background, with its profusion of flowers and view of the river, represents a most unconventional and virile conception of out-of-door accessories.

The portrait of painter Caillebotte's children (Fig. 7) is a charming though unpretentious bit of work. There is again the pyramidal construction. Particularly noteworthy is the way the shoes have been utilized as the darkest accents in the picture. They are balanced by the two heads, the dark hair of the little girl in rompers, and the flower jar. The hands and picture books were cleverly subdued, and the way the bulky shape of a sofa has been handled so as to form a light background cannot be easily improved upon.

"The Outing of Canoeists" (Fig. 8) is one of Renoir's most ambitious pictures. It is all animation, and has been painted largely for the purpose of showing the still life of a dinner table in sunlight. The diagonal tendency of the group, showing popular Parisian types in perspective, gives a realistic touch to the scene. In all group representation of modern life the diagonal arrangement is to be recommended. One can hardly judge this picture from a reproduction, as it is all color, flesh, glittering glass, sunlight, and green foliage.

Most peculiar is the scalloped outline of the awning. Who else but Renoir would represent it in that way? It is ultra-realistic; it is forcing the commonplace aspect of life to the extreme. It proves, however, that the most insignificant and commonplace-looking detail can be made pictorial. The shaggy zigzag line is not out of place in this particular arrangement. Renoir is one of the most wonderful manipulators of details. What others would entirely leave out he boldly puts in, and by giving it careful and loving attention (as all objects consist of surfaces and every surface is texturally interesting), raises it—if not to an accomplishment of accepted beauty—at least to something that is pleasant to an eye sensitive to form, color, and surface charm.

## TONING BROMIDE PRINTS BY THE SULPHIDE PROCESS.*

For a considerable time past I have taken a keen interest in the sulphide toning of bromide prints, and naturally I have been led into experimental work, having for its object the securing of a greater certainty in working and a greater variety in result. I believed from the first that the sulphide process of toning should offer greater variety and greater possibilities than it appeared to possess.

In relating my methods I am afraid you will think them absurdly simple. But perhaps their simplicity is an advantage; a method that is complex, and therefore uncertain, is not the method for the ordinary worker. It is only suitable for the man with patience and leisure. I possess an average amount of patience but very little leisure, and therefore simple methods appeal to me much more strongly. As an old carbon worker, accustomed to the variety of tones—and good tones—that are always obtained with certainty in that process, I was desirous of securing a similar range by sulphide toning in

* A paper read by Mr. Henry W. Bennett, F.R.P.S., before the Royal Photographic Society of Great Britain.

bromide. Sulphide tones are rich and good, but I thought that something more of the variety of carbon would be a great advantage. I am strongly in favor of the various shades of warm black and brown. But a warm black should be a brown black, not a purple black, which is undesirable for artistic photography. Purple blacks and purple browns I wished to avoid. I have seen a variety of tones produced by the sulphide method, but many were produced unintentionally. Purple browns and purple blacks were frequent among them, accompanied as a rule by muddiness or dirtiness of tone. The tones that I desired must be quite free from any tinge of blue or purple.

In the first place, I was confronted by the problem of the want of uniformity in bromide toning which I have seen in the work of others, and in my own early work. I may illustrate this by saying that some time ago I watched a worker tone some prints from the same negative and in the same dish—prints which apparently were identical before toning —and in the end, one was purple black and the other a weak, washed-out yellowish brown. There is no reason why the results should not be uniform; and in order to be able to obtain varied tones it is necessary to know first exactly how to secure one tone with certainty, that one tone being the warm, rich brown usually associated with sulphide toning.

As a basis of working I took the ordinary bleaching bath of potassium ferricyanide and potassium bromide, and in comparison with this I substituted quite a large number of other bleaching baths. When they simply consisted of substances which had a similar action on the silver salt, the final toning was always the same. My method of experiment was to cut one print into two or three pieces, treating one piece by the standard method and the other portions by the methods which I happened to be testing. In that case it was self-evident that everything except the toning was identical. I used the salts in the proportion of four grains of ferricyanide and six grains of bromide to the ounce of water. These are good proportions for average work, and the figure 4 furnishes a very easy basis for varying the proportions with those of other ingredients. After bleaching, the standard sulphide bath with which I worked was a solution of sodium sulphide, four grains to each ounce of water.

One cause of want of uniformity that I encountered was impurity in the sulphide. It is essential that a pure sample of sulphide should be chosen, semitransparent crystals a very light gray in color. I have sometimes been offered sulphide of a dirty green tint, and from such a sample only dirty and muddy tones can result. With a reasonably pure sample of sulphide it is always possible, if the method of working is right, to obtain tones which are rich, pure and transparent; "transparent" meaning the absence of muddiness or dirtiness in the shadows. A sulphide solution, if concentrated, will keep for a very long time. It should be dissolved in boiling water, and for the ordinary worker on a small scale there is nothing more suitable for the purpose than a screw-stoppered lemonade bottle. This obviates the greater part of the objectionable smell associated with dissolving sulphide; and if such a solution is carefully filtered, preferably eight or ten hours after mixing, it will keep in good condition for quite twelve months. It may be taken for granted, however, that everyone will obtain as pure sulphide as possible.

A question of greater difficulty to settle is the part which the production of the print plays in the after toning. Many factors enter into the production of the print which will materially affect

its capacity for toning satisfactorily. In the first place is the question of development. The choice of a particular developer is not so important as its condition at the time of using. My invariable plan is to use a fresh solution for every print. There is no more frequent cause of want of uniformity in sulphide toning than the practice of developing print after print in one quantity of solution. In the instance of unequal toning of prints from the same negative, which I mentioned a few minutes ago, the only difference between the two prints was one that had been developed with a strong solution of rodinal freshly mixed, and the other had been developed in the same solution after six or seven other prints had been treated. The difference in the condition of the developer was the only factor that determined the difference in the tones—one a purple black and the other a yellowish brown —of those two prints. A fresh developer for every print gives an image that will always tone to the desired color, while the oxidized developer which has been used for several prints previously will not produce an image that will emerge satisfactorily from the subsequent toning.

The best results are obtained with prints so exposed that development may be normal or full. The correct exposure for a bromide print is the one that permits the development to be practically mechanical. I am no advocate of mechanical development in general, but in this case it is an advantage. That is my usual practice, and if I have to depart from it I find that the results are not so satisfactory.

Naturally, as the development of the print is important, so also is the exposure. One might imagine that while development remained constant, a difference in the exposure would not make any material difference. As a matter of fact, it makes a wide difference. A print which has been correctly exposed —say, twenty-one seconds—and another which has had one-third longer exposure—twenty-eight seconds—have very different toning capacities. Not only is the longer-exposed print darker than its fellow, but the tone is dissimilar. I have examples with me, but I am afraid that you will not be able to appreciate the difference by artificial light. Over-exposure tends to give a purple brown with a general muddiness and under-exposure, a yellowish brown rather than a rich, full brown.

The strength of the developer within moderate limits, is not important. I have used diamidophenol for normal work in the proportion of one and one-half grains to each ounce, with ten times its weight of sulphite and one-fourth of its weight of potassium bromide. I have also used metol, ortol, and one or two other developers varying in strength from one to three grains to the ounce. Within these limits there is very little difference in the toning, but if very strong or very dilute, the toning capacity of the print begins to be affected.

There is, in addition to the above, one cause of want of uniformity in toning which I think is very rarely suspected. If a print is dried before toning—*i. e.*, after developing, fixing, and washing—it tones quite differently from what would be the result if it were toned before drying. If the print is not dried, but toned at once after washing, the resulting tone is a purple brown with a tendency to muddiness, but if it is dried before toning it is a pure and transparent brown. It is my usual practice to leave the prints until I have a number that I can tone together.

A standard bleaching bath is kept in the form of a concentrated solution:

| | |
|---|---|
| Potassium ferricyanide . . . | 1 ounce. |
| Potassium bromide . . . . | 1½ ounces. |
| Water to make . . . . . | 9 ounces. |

Ten minims will contain:

| | |
|---|---|
| Potassium ferricyanide . . . . | 1 grain. |
| Potassium bromide . . . . | 1½ grains. |

The working solution should contain 4 grains of ferricyanide, *i. e.*, 40 minims of this solution to each ounce of water.

The addition I have made to that bleaching solution consists of a small proportion of mercury from a stock solution in which every 40 minims contain:

| | |
|---|---|
| Mercuric chloride . . . . . | 1 grain. |
| Potassium bromide . . . . . | 1 grain. |

The stock solution is:

| | |
|---|---|
| Mercuric chloride . . . . . | ¼ ounce. |
| Potassium bromide . . . . . | ¼ ounce. |
| Water to make . . . . . | 9 ounces. |

Therefore, in giving you particulars of some of these prints, I wish one grain of mercury to be understood as meaning in 40 minims of that solution. The addition of the potassium bromide is a distinct improvement. By using the chloride alone there is a slight tendency toward a purple tone. The mercuric solution is added to the ferricyanide bleaching solution in various proportions, but never in any greater proportion than an equal number of grains of mercury and of ferricyanide. Thus, in taking a bath containing four grains of the bleaching substance to each ounce of water, there may be three and a half grains of ferricyanide and half a grain of mercury, or the proportion of mercury may be increased so that the quantities are two grains of ferricyanide and two grains of mercury, but that is the largest amount of mercury that I ever use. A very small proportion of mercury makes the print into a colder brown than the tone given by ferricyanide. As the proportion of mercury is increased the tone becomes colder until the mercury and ferricyanide are used in equal quantities when the tone is pure black. Perhaps some of you may ask, Why tone a black bromide print to a black? The answer is that the black obtained by sulphide toning in that way is a richer, purer black than can be obtained by development. In most cases, development gives a cold black, and while this is agreeable for some work it is not the rich black to which we are accustomed in an engraving. By this method of sulphide toning a black tone is obtained that is quite as rich and pure a black as an engraving can show, and by varying the quantity of mercury we can obtain any shade of brown between this black and the ordinary brown of the sulphide. I have here four prints arranged in the order of their tones produced by adding mercury in different proportions to the ferricyanide bleaching bath. It is possible to obtain tones intermediate between these by varying the proportions of the two salts to any extent that may be desired. But in order to accomplish this the prints must be uniform *before* toning, with one exception, to which I will call your attention later. I might add that it makes no difference by this method whether a contact print or an enlargement is being toned. Mr. Bennett here showed a number of prints in which the proportions of the salts had been varied from equal parts of ferricyanide and the mercury solution to one part mercury and five or seven parts ferricyanide. He emphasized the fact that he never used more mercury than ferricyanide.

This use of mercury not only gives a colder tone, but it also intensifies the print. It is somewhat difficult to describe to what extent a print is intensified by the addition of mercury to the bleaching bath, but I have prepared three prints for toning with different proportions, which were cut in halves before toning, one-half being toned and the other left untouched. There is not only an alteration in color, but also an alteration in strength.

When speaking of the necessity for uniformity in exposure and in development, I said that I had one reservation to make. This is in the production of prints which it is intended to tone to a black or brown-black color. In these cases, I found it necessary to shorten the exposure slightly and the development also. For toning to a pure black with one part of mercury to one part of ferricyanide, my usual plan has been to give two-thirds of the normal exposure and not more than two-thirds of the normal development. For toning to a cool brown, the exposure naturally will vary between that and the normal. But that is a sufficient guide to allow the difference to be appreciated.

In all printing processes the question of stability must arise. I can hardly use the word permanent, as the life of a photographic print is determined by the paper support. I have experimented very largely with these prints and have used various reagents coupled with heat and moisture to change them or make them fade, but in no case have I been able to affect the print without first destroying the paper support. The paper would always break and rot away before the image showed any sign of injury. A year or two ago a paper was read before this Society on reducing bromide prints, and although a large number of the most suitable reagents for reducing silver prints were tried, it was stated very definitely that it was found quite impossible to reduce to any appreciable extent the sulphide-toned bromide print without first destroying the paper. This has always been my experience, and I have not found the addition of mercury make any difference in that respect.

There is one other point arising out of this sulphide toning which I thought might be of interest also. It relates to the use of sodium sulphantimoniate (Schlippe's salt). This gives a red tone somewhat approaching that of red chalk in character, when toning an image bleached with potassium ferricyanide and bromide. With Schlippe's salt as the sulphide, it is necessary that only ferricyanide and bromide should be used as bleaching agents. Mercury must not be used on any account. It is a very general experience that sodium sulphantimoniate prints have a tendency to be yellow stained, and that stain does not disappear in washing. There is a very simple method of removing the stain—a method which I have never seen given. In the first place, the print should not be left in the sulphantimoniate solution for very long, preferably not more than about one minute. If, after washing, it is found to be stained, a solution of washing soda may be used with advantage. A crystal about the size of a walnut should be dissolved in a pint of hot water and the print immersed as soon as it is cool. In this way every trace of stain will be removed, and after the print has been washed to free it from the soda it will remain quite pure and white.

These modifications in sulphide toning give greater variety and richness to bromide prints. It is, I think, distinctly valuable to be able to vary the tones in the direction of blacks, brown blacks, and cool browns. A longer range is obtained, varying from the color of the developed print to that given by the ordinary sulphide toning. These varied tones are obtained with certainty and uniformity; they should form a useful addition to the bromide printing process.

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Stops of equal value on lenses of different length admit the same amount of light to the plate, and require the same exposure, although one aperture may be twice as large as the other. Thus, *f*/8 on a 16-inch lens is twice as large as *f*/8 on an 8-inch lens, but the rapidity of each is equal.

## H. SNOWDEN WARD

### President of the Photographic Convention of the United Kingdom.

[The following humorous account of H. Snowden Ward, from the pen of "Touchstone," in *The Amateur Photographer*, will be appreciated by Mr. Ward's many friends in this country.—Ed. W. P. M.]

I used to meet, almost daily, a sturdy, knickerbockered figure tramping eastward along the Strand, a figure notable not only because of the countrified whiff of aggressive, healthful athleticism exhaling, so to speak, from its attire, but also by reason of the absolute appropriateness of the visage perched atop. A rosy-cheeked visage it was, yea, with a honey-colored beard fringing it; and two blue eyes twinkled above a pushful nose—all of which chimes in naturally with knickerbockers in the Strand.

This vision for tired eyes was Snowden Ward, the man who was trying, at the time, to force on an unwilling world the use of the word "photogram" instead of "photograph," and who sat daily in an office in Effingham House, surrounded by bevies of lovely typists editing his reform magazine, writing miles of letters, composing lectures on any subject, from "Marie Corelli's Town and Times" to "The Advantages of Vegetarianism," and training the young idea of one George E. Brown how to produce "analecta."

One of his early loves was radiography, and among his achievements he is perhaps proudest of all of his part in founding the Röntgen Society. The worst of the $x$-rays is that they have no sentiment—indeed, hardly any decency—and turning over Mr. Ward's *Photograms* of a dozen years ago, I find now and then, between a happy picture called "The Engagement Ring," and another with the title "When Shadows Fall," a full-length "Radiogram of an Adult, Fully Clothed," with a hatpin perched impossibly on the top of the skull, the hat itself having apparently gone the way of forgotten things. Thus far did Mr. Snowden Ward's enthusiasm carry him.

He can always make the most practical of apologies for an absentee—he can take his place. If there is a leak in the boat, says the secretary, stop it up with some Snowden Ward. At one series of meetings I heard him improvise on such diverse subjects as record and survey work, cloud photography, and microscopic investigations, when the respective persons appointed to deal with them sent their regrets, or didn't send their regrets, as the case may be. A happy after-dinner speaker, he could propose the toast of the Prince and Princess of Wales, and make it interesting. In after-dinner speaking, though, he has a serious rival who runs him very closely—Mrs. Snowden Ward.

But wherever you meet him, he always has time to stop and tell you things. He loves telling you things, does Snowden Ward. And, his heart being in the job, he has turned this penchant into money, and every winter whirls round the States, telling things to the inhabitants—things about "Photogramy" and "Pilgrims' Ways," and "How to Make the Perfect Negative," and "Where Dickens Lived," and "Saint Veronica," and the "Legion of Frontiersmen." They love miscellaneous information, these Americans, and they pay handsomely for it. Snowden Ward gives it 'em—and they get their dollar's worth.

When he has collected enough he packs his booty in a bag and voyages home for a holiday in Kent, where he plays at Little Clarence, the Boy Scout; lives when it's not raining—in a tent, and tracks the fierce tribesmen of the Weald. Then, when he wants some more cash, off he goes again to the oofy and self-improving side of the Atlantic and tells people things—which sounds monotonous. So it would be if it were done by anybody else but Snowden Ward.

## PRACTICAL NOTES ON ALBUMIN PAPER PRINTING.—I.

It may seem to some a waste of time to write anything on the subject of printing on albumin paper, seeing that so little of it is now used by photographers, remarks a writer in the *British Journal of Photography*.

Gelatine and collodion P.O.P. have largely supplanted it—almost entirely among amateurs—but many professionals adhere to it, and possibly more would use it if they, or their assistants, were really more familiar with its working. In the opinion of most persons, there is a certain charm about a good albumin print that one does not see in gelatine, while the results are at least as permanent as those on the emulsion papers. Albumin paper in the sensitive state is a material which will not keep for a great length of time, particularly in hot, moist climates. As it is largely for the benefit of our readers thus situated that these notes are penned, it is first necessary to point out that the most advisable procedure is to obtain the albumin paper in the unsensitized condition, that is, albuminized only, and to sensitize this as required. At the present time little, if any, paper is albuminized in this country. The albuminizing trade has passed on to the Continent, mostly to Dresden, but the paper can be had from the larger photographers here. Some samples are quite inodorous, while others have a very fetid smell, which becomes very offensive while the paper is being sensitized. That is due to the use of the albumin in a decomposed state. When employed in that condition it is easier to apply, while it gives a more glossy coating than if it were used fresh. It might be surmised that such paper would not yield such permanent prints as would those made with the inodorous coating; but it has been found by the test of time that, in this respect, one is as good as the other.

Coming now to the silver or sensitizing bath, its strength, theoretically, should depend upon the amount of chloride with which the albumin is salted. As this latter is not stated, one will do well to use the strength recommended by the makers of the paper. As a rule, the stronger the silver bath is the greater the vigor in the prints. But this holds good only up to a certain point, for it has been found in practice that no advantage is gained in this direction by increasing the silver beyond seven to eight times the weight of the chloride in the albumin, supposing that to be of ammonium, or its equivalent in other chlorides. From fifty to sixty grains to the ounce is a good average with most papers if deep rich purples are desired. Here is a suitable formula for general work, and it is well to make up a good quantity at a time:

| | |
|---|---|
| Nitrate of silver . . . . . | 10 ounces. |
| Distilled water . . . . . | 80 ounces. |
| Nitric acid . . . . . | 10 minims. |

This quantity will about fill a Winchester quart bottle. After filtration, some is poured into a dish to a depth of half an inch or more, and the paper floated on it. There are different ways of doing this. A good method is to take the paper by two opposite (diagonal) corners, *i. e.*, form it into a bow, then lay one of the other corners on the surface of the solution and gently lower the rest of the sheet, taking care that no solution gets on the back. As soon as the whole sheet is on the liquid it is a good plan to raise the corner first applied to see if any air bubbles have become imprisoned, and, if so, to remove them with a small piece of blotting paper. If, when the paper is

floated, it is seen that it has a tendency to curl away from the solution, gently breathing on the back for a few seconds will cause it to become flat again. When the paper is exceptionally dry, it is a good plan to place it, exposed, in a damp place for an hour or so before floating. This will reduce both its tendency to curl and that of the prints to blister in the fixing bath. With regard to the time of floating, that, to an extent, must be governed by the temperature. In hot weather, with most papers, a minute and a half will suffice with a bath of the above strength; in very cold weather, from two and a half to three minutes will be none too much.

After the paper has floated the necessary time, it is taken by the fingers by two corners, gently and slowly taken off with a somewhat dragging motion, and pinned up on a line to dry. The best pins for the purpose are black or mourning ones; if the ordinary ones are used, the bare metal causes a reduction of the silver, which runs down the paper, and renders those portions useless. American wooden clips are often used for suspending paper, and are very good for the purpose. When the paper is suspended, a scrap of blotting paper should be put on the lowest corner to absorb the drips. The reason for removing the paper in the way just described is that very little solution is taken away with it—only a few drops; whereas, when taken off quickly, there is a lot to drain off and much waste of bath results. After the paper ceases to drip, it may be quickly dried before a fire.

Paper sensitized as above should be used the day of preparation or that following, as it will not keep more than a day or two. If, however, the paper be kept between pure blotting paper that has been moistened with a solution of carbonate of soda, and then dried, it will keep for many days. If, in place of the nitric acid, citric acid be used in the proportion of about a fourth of the weight of the nitrate of silver, the paper will keep white for many weeks, but it will print very red, and it will be difficult to tone beyond a red-brown color without mealiness. If the paper is required for keeping, the best way of employing the citric acid as a preservative is to float the paper first on the silver bath as above, and when the superfluous solution has thoroughly drained off to float the back of the moist paper on a solution of citric, about thirty grains to the ounce, for a minute or so; finally suspending to dry. Some samples of albumin when taken from the solution will appear to have a greasy and repellent surface, and the superfluous solution collects in drops or tears, which would show as spots in the prints. In such cases the paper must be blotted off between sheets of pure blotting paper, when it is removed from the bath. The blotting paper may be used over and over again, or until it ceases to be absorbent, and can then be added to the residues.

After six or eight sheets have been floated, the bath should be stirred up with a glass plate in order to keep its strength uniform. The paper, it may be explained, robs the bath proportionately of more silver than it does water, consequently the bath gets weaker by use, and on the surface first, hence the stirring up is necessary to obtain uniformally sensitized sheets. And since the bath by use gets weaker in silver, it becomes necessary to test it from time to time. Small hydrometers, called "argentometers," are sold for the purpose by the dealers. In the use of a new bath they indicate its strength in silver accurately. But after the solution has been in use for a time they do not act, as the bath then contains a

considerable quantity of the nitrate salts introduced by the decomposition of the silver in the albumin, which adds to its specific gravity. These little instruments are convenient in use, and serve all practical purposes if an allowance be made (in the case of an old bath) that it is weaker in silver than the argentometer indicates. After a little time the sensitizing solution will become discolored. Methods of decoloring it, and further details in working the albumin process, will be dealt with in a future article.

It was mentioned at the conclusion of the previous article that after the sensitizing bath has been in use for some time it becomes discolored. With some papers it will become discolored after a day's use; with others, more slowly. In any case, if the bath has anything beyond a pale tint the paper sensitized on it will be more or less tinted, in which case great purity of the white in the prints must not be expected. Various methods of decolorizing the solution have from time to time been suggested, but the simplest, and at the same time the best in practice, is to add to the discolored solution—for the quantity given in this former article—three or four teaspoonfuls of kaolin and shaken well for a minute or two. By the next morning the kaolin will have settled compactly to the bottom of the bottle and the solution will be as clear as when first made. The clear solution, or part of it, is then passed through a filter placed in another bottle. The same filter may be used over and over again if the first few ounces that pass through are given a second filtration. It is a good plan to return the bath to the stock bottle after the day's sensitizing is finished and shake it up well, as it will then be found clear and bright for immediate use. The one supply of kaolin, if left in the bottle, will serve for a very long time.

If, after use for sensitizing, the solution is left in the dish for an hour or two, and it is then required to sensitize more paper, it will be found that there is a scum on the surface, which scum will be taken up by the sheet of paper. Therefore, before being again used, the bath should be skimmed by passing the edge of a strip of blotting-paper over it, taking care that the paper is long enough to completely cover all parts as it is passed over.

It is desirable to keep a stock solution of nitrate of silver of a hundred grains to the ounce of water to replenish the bath with. This will generally be found to keep the solution up to its original strength. If it makes it stronger by the "Argentometer," as may happen by evaporation if the bath is left standing in the dish for long periods in hot weather, a little water must be added. If, on the other hand, the bath is found below its original strength, some crystals of nitrate of silver must be added.

Little need be said with regard to the printing, but it should be mentioned that if dark purple brown be required the printing should be carried further than if only light browns are desired. There is one other point that may be mentioned in connection with home-sensitized papers, more particularly for the benefit of those working in hot and dry climates. It is that the paper should not be printed in an abnormally dry condition; otherwise there is a difficulty in obtaining good tones, and the prints when toned, are liable to become mealy in the toning operation. This state of things is likely to occur in this country in very hot weather, particularly when the printing frames and pads, as is very usually the case, are kept in the printing-room, where they become abnormally dry. In this case the paper will take quite a different tint in printing from that which it assumes under normal

conditions, and it will also refuse to tone beyond a very light stage before it becomes gray and mealy. When this state of things is experienced the best remedy is to put the frames and the pads, exposed, in a damp place for the night, when they will generally absorb sufficient moisture to restore them to their normal state. This trouble is more likely to arise with paper of home sensitizing than with the ready sensitized. The tint taken by the paper in the printing is somewhat dependent upon the particular chloride used in salting the albumin as well as on the degree of moisture the paper contains at the time of printing. For example, if two pieces of the same paper be printed, one after complete desiccation (and of the frames and pads also), the other normal, and with frames and pads in their normal state as regards moisture, it will be found that there is a very material difference in the color. It will also be found on toning that the former will not tone except to an unpleasant tint and will be mealy, while the latter will readily tone to almost any color.

After printing, the free nitrate of silver must be washed out before the pictures are toned. Common water suffices for this. Two or three changes will be enough, that is, if the third one has only a slight milkiness. If the paper is sensitized in the bath the formula for which was given in the previous article, and very warm red tones are desired, it is a good plan to pass the prints through a very weak solution of salt in water. This will change the color of the prints to a yellow tint, and they will tone to a pleasing warm red brown. If the paper is sensitized in the bath with citric acid it is a good plan, after washing out the silver, to pass the prints through a solution of common washing soda, say a crystal about the size of a walnut in a quart or three pints of water, and then rinse in plain water. This neutralizes any acid that may remain and greatly facilitates toning, especially to the purple stage. The treatment is also useful when using some brands of ready sensitized paper. The free silver having been got rid of, the next thing is the toning of the prints. There is a great variety of toning baths, though most operators have their pet formula, to which they rightly confine themselves. We shall here give formulæ for one or two of the baths most generally used. One of the most favored ones for general use is the acetate bath. It is well suited for warm red browns, and with rather deep printing, from vigorous negatives, rich purple browns may be obtained. The toning agent in all cases is gold, and it is convenient to keep the chloride in solution. A convenient strength is a fifteen grain tube dissolved in fifteen drachms of distilled water, one drachm then containing one grain of the chloride, at which strength it keeps better than when more diluted. The formula for the acetate bath stands thus:

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|---|---|
| Acetate of soda . . . . . | 30 grains. |
| Water . . . . . | 8 to 10 ounces. |
| Chloride of gold . . . . . | 1 grain. |

This bath must be made up at least twenty-four hours before it is used; otherwise it is apt to yield mealy prints. The bath may be used over and over again, if more gold be added from time to time, but the addition should always be made the day before the bath is next to be used. The bath should be kept in a dark place, as light would cause some of the gold to be deposited on the sides of the bottle. With this bath one grain of gold will tone a full sheet (22 in. x 17 in.) to a deep purple brown. Another bath which is a favorite with many is the phosphate bath:

| | |
|---|---|
| Phosphate of soda | 20 grains. |
| Water | 10 ounces. |
| Chloride of gold | 1 grain. |

This bath, unlike the acetate, may be used as soon as it is made, but it will not keep. It gives dark purple brown tones. A bath well suited for colder tones than either of the above is:

| | |
|---|---|
| Bicarbonate of soda | 4 grains. |
| Water | 8 ounces. |
| Chloride of gold | 1 grain. |

This bath, like the phosphate, is ready for use directly it is made, but it will not keep for many hours.

Albumin prints can be toned in a combined toning and fixing bath; indeed, in the earliest days, prints were universally toned by this method—though for theoretical reasons it is not to be recommended. Yet it must be admitted that many of the pictures toned in it forty or fifty years ago, as regards tones and permanency, leave little to be desired. A very general formula for the bath was:

| | |
|---|---|
| Hyposulphite of soda | 12 ounces. |
| Water | 15 ounces. |
| Chloride of gold (in 2 ounces of water) | 15 grains. |
| Nitrate of silver (in 2 ounces of water) | 30 grains. |

When the hypo is thoroughly dissolved the solution of chloride of gold is added by degrees with constant stirring, and then the nitrate of silver in a similar way. The bath should stand a day and then be filtered. In some cases, the prints, without washing, were put straight from the frame into the bath; in others the free silver was washed out. In either case, the toning was a slow operation; in cold weather it would sometimes take several hours. With this combined bath there is no question that the prints are thoroughly fixed before they have acquired the necessary tone. It will be noticed that the bath is quite different from those now used for P.O.P. It contains no lead, alum, etc. It is simply water, hyposulphite of soda, gold, and silver, and the latter was often omitted.

## RETAINING THE CUSTOMER.

THE following remarks may have a familiar ring to some of our readers, but so many photographers fail to realize that "a bird in the hand is worth two in the bush," that a restatement will do no harm.

Few things are more persistently dinned into the ear of the photographer than is the necessity for advertising.

To make known both name and work, energetically and persistently, is accounted a good and necessary thing. And so, doubtless, it is. But to attract a new customer might almost be described as a means to an end rather than an end in itself, the real end being the *retaining* of the customer. The photographer who fully understands the business end of his profession knows that the names on his books, the names of people who have sat for him, form one of his most valuable assets.

There seems to be still too much survival of the old idea of value inherent in a negative. The negative is not without value—some negatives are exceedingly valuable, as are some collections of negatives; but speaking of the whole question, too much value is placed on the stock of negatives, and too little value on the legitimate possibilities of a *clientele*. Like much of our retouching, which is a mere survival of wet-plate necessities, the hoarding of negatives dates from a

time now old-fashioned and in many ways effete. *Then* the sitting for a photograph was an event—often of a lifetime; and once a record was obtained the photographer scarcely expected to again see his sitter in a business way. *Now* he takes his sitter, and there is no reason why the sitting, especially if of a lady or of a child, should not be repeated at the end of two years, or even earlier. In the old-time days of one negative per lifetime, that negative had a reasonable probability of being again required when the person portrayed was dead. Today this value is much more problematical.

Negatives are still worth storing, but the original is better worth cultivating rather than waiting for an order from children or heirs.

And in line with this question of repeating sittings at intervals comes that of the immediate value of the negative. Very many photographers welcome a sitter to the studio, take an order for a dozen cabinets, and that is the end of the matter. By a judicious treatment of the sitter, the initial order can often be increased, and, although it is not the rule, yet many negatives may be used, in a comparatively short time after they have been made, as a means of again approaching the customer.

The question, therefore, is moved from *getting* the customer to *pleasing* the customer.

First and foremost, in spite of what pessimists and cynics say, good work must be considered. Even among photographers jealousies are not unknown, and the successful man is often criticised in the quality of his work. And the criticism—or perhaps, I ought to say, condemnation—is usually wrong. The work may be "different," but in its own line it is probably good, however orthodox or however visionary our ideas.

Next to good work, a good business system is necessary. Every name of a customer should be carefully indexed, and the index should be systematically gone through. By letter or by other means these people should be kept in touch with the studio. The plan of glorifying what used to be a mere "reception room" into one of the fashionable lounges of the town is one of many methods of holding the interest. And such a method has the distinct advantage that it keeps the customers in actual personal touch with the studio, which is better than any mere postal connection. Only a limited few can follow this to its full extent, but all can do their best to make the show-room attractive.

I think the success of the fashionable lounge idea hinges not a little on the point of being "asked to buy." When a person comes on business bent, he or she should have prompt attention. But for the rest they should, as much as possible, be allowed to come and go. If a lady has the habit of meeting a friend at the studio, she may call twenty times in a year, and can scarcely be expected to sit for her portrait every time—or every tenth time.

Perhaps the man who more than any other needs to keep close track of his customers, is the man who is in a very small way of business. The man who has larger capital invested and who can employ a staff of assistants often has his business system thoroughly arranged and understood. The smaller man too often makes a spasmodic effort when business is not moving satisfactorily, and at other times lets things take their course. His method is very often too general. It is all right to flood the town with handbills, offering coupons or special advantages; but there should be an additional special effort to those who personally know the studio. Five thousand circulars

scattered broadcast will hit perhaps five hundred people, and twenty of these will drift into the studio as a direct result; others may come afterwards, unconsciously influenced by the bills. But five hundred rather more careful bills or letters to a selected list, and in some way intimating that their former visit is remembered and appreciated, will draw a much larger proportion of interest and probably an actually larger result. The neglect for properly working this list of preferred names must in the aggregate lose thousands of dollars to the fraternity.

I know many cities where there are many good photographers. I know one city that ere long may write its population with six figures, where there is only one well-known firm; and a good man tried for a long time to get a part of their trade, and finally retired discomfited. His work was not better than theirs, but it was good, sound work; but they had a hold on their customers. He got the fringe only of their trade, and that by quoting a lower rate. But beyond that, he was powerless. For years, as the town has grown, the old-established firm have kept alive and up to date. They have always, first, endeavored to hold their trade, and, second, to win new trade. By giving due attention to the first, the second becomes easy; by devoting all the energies to the second, the first is let slip. By all means attract all the new trade possible; but once a customer is obtained, make that customer a friend and freeze on to him.

## THE PAYNETYPE DIRECT HALF-TONE METHOD.

THE "Direct Process" of photo-engraving has received much attention, writes the editor of *Photo. Art Engraving*, and had considerable space devoted to it in both the *Graphic Arts and Crafts Year-Book*, and the *Penrose Pictorial Annual*. Trade papers first expressed interest and then dismissed the matter with scant consideration. However, as it opens up probably the greatest possibilities in the development of process engraving in recent years, we do not condemn it as impossible, but rather see some practical objections which to us seem "'practically" impossible to overcome.

The editor is in a position to appreciate the value of a perfected direct process of engraving to the newspapers and others who demand speed in the production of printing plates. After having read all the matter published to date regarding the Paynetype method he has come to the conclusion that unless in practice the process overcomes the following practical objections, we will continue for a considerable time to make plates by the "indirect and imperfect but practical method" now in universal use.

For argument we will imagine that the press photographer is sent to cover a story of an automobile smash-up. He reaches the scene with his camera loaded with a screen and zinc "Direct Plates." Photographers from other papers are also on the scene with their one-thousandth-of-a-second cameras. They take a half-dozen quick "snaps," while the "direct process" operator is adjusting his tripod. (This is absolutely necessary, because he must make a time exposure of from five to twenty minutes.) If there is much of a crowd present he will have to be quite a diplomat in order to keep restless, rubber-necking humanity quiet and away from the front of his lens while making his time exposure. If the accident occurred in a sunny spot on the

right side of the road (with the sun at the back of the camera) the operator may get a good result, but to be sure will, perhaps, deem it advisable to make two exposures.

As soon as he finishes his second exposure he rushes back to the office and develops his plates, only to find that one would have been a "dandy," only it is a trifle overexposed. The other is a bit fogged, and, therefore, cannot be used.

Now let us suppose the same thing happens to one of the other operators. He gets a "near dandy," being a bit overexposed. He discovers this while developing, and can overcome a great deal of the difficulty by reducing. If he had time he could overcome it all, but time being a factor he must, perforce, slight it. He washes off the "teardrops," throws up a velox enlargement, jumps it into the art department, where the retoucher splashes in some contrast, putting in a light sky and here and there some contrasty blacks. The copy then goes to the gallery to be "re-photographed" on a prism camera, etched, bevelled, and blocked in twenty minutes from the time it leaves the artist's hands.

We will imagine another condition. Our "direct process" man gets his time right, but not being able to get near enough to the object, finds, when it is developed, that his plate is worthless. The foreground is well defined, but the object of the story is so small and cut up by the coarse screen that it is useless for the purpose of illustration.

Again, we will imagine the same thing happens to the other fellow. Everything is lovely except the object is too small for practical use. The negative is crisp and clear, a Goerz Dagor having been used, and even on the object, small though it is, the detail is perfect. A four- or five-time Velox enlargement saves the day. This, of course, is impossible where the direct process is used, because there is nothing to enlarge but dots, and as the white space between the dots is enlarged in the same ratio, the result would simply be an extremely coarse screen. If the plate were enlarged four times lineal, the resultant would be approximately sixteen lines to the inch.

Certain papers use a method of casting half-tones into the stereotypes and printing from the original plates. This method was invented by S. H. Horgan. Sometimes as many as eight sets of plates are necessary where this method is in vogue, and, of course, there would be absolutely no opportunity to use the "direct method" for strictly news assignment work (and there is surely no excuse or advantage in using it for anything else), because to make eight good plates it would always be necessary to expose for at least ten, allowing 25 per cent. for defective exposures or slip-ups. Twenty-five per cent. is a low percentage of spoilage, as the percentage is often as great when working in a gallery under the best of conditions. The silver bath is likely to go wrong, or the developer is likely to deteriorate, or the negatives to get slugged while turning, or the print on metal wash off because of any one of several different reasons which are appreciated by all practical men, and practical men are the ones most likely to be interested in any method which will tend to lessen labor or increase their profits.

The waste of metal and the consequent loss caused by defective exposures would be sure to be an additional economical objection to the universal adoption of the "direct method." In the case of the present method it is only necessary to repolish a sheet of metal with pumice stone in order to effect a saving and again prepare it for use.

The excessive cost of powdering, burning-in, and etching each separate exposure, whether small or large, would

multiply the expense to the producer, and all the saving now effected by putting a dozen or more small negatives on one large flat and etching them together would be lost, and in commercial shops prices would soar to such heights that only the very rich could afford to use the "direct method" plates.

Further it would be impossible to insert one or more half-tones into a line border or layout to embellish the half-tones as is now done on all newspapers. It would likewise be impossible to correct a proportion or make a change by cutting the negative, as is often done to save redrawing.

In condensed form the process is as follows: A polished metal plate is coated with a substratum of collodion, and on this the gelatine emulsion is coated just as in making dry plates. To get a positive half-tone image in the camera, the metal dry plate is exposed behind a half-tone screen to an ordinary negative of the subject to be engraved in half tone. A glycin developer is used and the plate washed and fixed as is customary with a dry plate. The plate is then immersed for half a minute in the following bichromate solution, used at a temperature of 60° F.:

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|---|---|
| Bichromate potassium crystals . | ½ ounce. |
| Potash alum. crystals . . . | 12 grains. |
| Distilled water . . . . . | 12½ ounces. |

The plate is then rinsed with water and developed like a carbon print in hot water of a temperature of about 120° F., first allowing the film to soak in the water for a minute or two and then assisting the removal of the soluble portions of the film with a camel's-hair brush or other means. The plate is then treated like an enamel-coated plate. It is put in a whirler, the surplus moisture driven off, and the plate dried while whirling face down over a gas stove. When the plate is cool the collodion substratum is removed from the portion to be etched by a mixture of alcohol and ether on cotton wool. The plate is then ready to be etched in the usual manner with perchloride of iron. When a negative image is had on the metal plate, as when it is exposed to a positive copy, the inventor has adopted a reversing process by which he changes the negative image into a positive before he develops the gelatine as a carbon print.

## ABOUT BUSINESS.

*Trade Notes*, a monthly trade journal, devoted to the interests of the Southern photographers, has the following to say about business in that section of the country:

There is no use in denying the fact that there have been spells of bad business that have visited almost every quarter of our territory, during which there was little or nothing doing, especially in the portrait end of it. These periods have not all come at the same time all over the territory, but certain localities have been reporting it extremely dull, whereas other quarters report some life to trade. Some individuals report things quiet, while others in the immediate neighborhood report very satisfactory orders. But, summing up the present conditions throughout the South, we are glad to announce that from those sources that are most promising comes the news of a decided activity and strong indications that it will keep up. These spots are almost exclusively in the larger cities, and principally among those who cater to the better grades of customers.

There is a very decided improvement among those photographers who have stuck to their ideals in the matter of first-class, clean, permanent work, and

who, all through the depression, have maintained their prices. The large town and city cut-price men have not seen much improvement yet, while the penny and postal card photographers report just a fair business. This is, of course, taking the average, for there are some exceptions all along the line, where the varying business ability of the individual makes up the difference in the visible amount of business. But, on the average, the best city galleries are all showing up well and the business appears to be a healthy growth.

In the medium-sized towns, those that have some factories and lines of business other than farming to supply the larger part of the business, report that while the portraiture end of it is not very good, the commercial part of the business is excellent, and the outside and general view work contributes the largest share of the aggregate business. The portraits that are made are generally of the best grade, and the prices hold well. Those that are not willing to pay the price of good work either do without or else satisfy themselves with a penny picture or post card, but even these latter are not in great demand. In the agricultural towns things are decidedly quiet, for the very good reason that the farmers are all busy with the crops and are using the horses so constantly that the women folks are not able to get to town. But, though things are quiet, the photographers do not seem to be discouraged, for the crops are abundant, and, while prices are dropping somewhat, nevertheless the farmer will sell his products for a very fair price, which will be quite as good as that received in former years. It seems that the very high prices that have prevailed among the cereals and tobacco have not gone to the average farmer, as most of them sold before the rise, and it was the middleman who scraped off most of the gain. Those farmers who sold from the thresher last year sold at a fair price, but those who held, or who bought and held for speculation purposes, made a tremendous profit. This year the farmer is likely to get the bulk of the profit, and the speculator will not be the big winner. This will make business better, especially in the wheat, corn, and tobacco districts.

Photographers generally have not felt disposed to let themselves out in the matter of purchases, and, financially, seem to be in very good shape, for the hard times have made every one more careful about reckless expenditures and commitments. There is most decidedly a more conservative way of going at things, and the idea that a good credit is a very powerful asset in a pinch. Those who had taken care of their credit had very little difficulty in getting through, but those who had not considered it worth while to keep the credit in good shape have had to scrimp pretty close.

This enforced cash buying, and the small amount of the orders have induced some to patronize the corner drug store and to put up with the many inconveniences that this method of doing business causes, but the harmful results of the use of old or poor stock are showing in the increase of business among those who use nothing but the very best of material, and there is a decided tendency to get back to the old times, when the best and freshest stock was obtained from the regular stock dealer.

The use of cheap developing papers also shows a hesitation except from view and commercial work. The users of the good papers are getting the business at the expense of those who are making their pictures the easiest way. The public is wise and will not be fooled for a very long time. The best opportunities for business lie in producing a first-class grade of work at fair prices, and not to get flustered at periods of depression, but to hold tight and wait for the good times which are very nearly here.

## HINTS ON TANK DEVELOPMENT.

THE constant succession of new apparatus for stand or, as it is now more often termed, tank development, testifies to the strong hold which this method of work is taking upon the photographer, writes Mr. R. Child Bayley in the current issue of *Photography and Focus*.

When the Kodak Company first put its developing machine upon the market there were plenty of people to decry it, and to contend that it deprived the photographer of "control" over his results. They refused to admit what was the fact, namely, that it only deprived him of a control which he fancied he possessed—the supposed power of remedying in development errors which had been made in exposure, while it left him the only true control he had ever had—the power to get more or less contrast by altering the extent of development—an alteration which could be effected either by varying the strength of the solution or the time during which it was allowed to act.

When, however, it was found that the machine had not only a sound theoretical basis, but also that it was possible with it to do, and to do better and more conveniently, all that could be done by developing the films in a dish one at a time, it was realized that the scientists were right, and that development should be a definite measured operation, not one conducted by guesswork and rule of thumb; and that it was much more important to know the strength and the temperature of the developer than the superficial appearance of the plate as it could be observed in the feeble light of the dark room. When once this came to be generally recognized the growth of tank development became very rapid, and the appliances for carrying it out were multiplied.

There were certain misunderstandings of the process at first, which caused trouble to some workers, and it may perhaps be as well if we recall what some of those were. One of these was the belief that extremely dilute developers were advantageous, or at least were as good as those which were more concentrated. This is not the case. The action of a very weak developer for a long time is not the same as that of a stronger one for a much shorter time.

The actual strength of the developer lessens at a greater rate than the dilution. If we double the bulk by the addition of water, we find at once that the time taken to get the same density as before is more than doubled. This, too, is regardless of the fact that when a great degree of dilution is reached we may have so little of the actual developer present that there is not enough of it to develop the plate properly at all.

But although the strength of the developer to bring out the image is weakened by dilution, its power of fogging the plate does not seem to be diminished. This appears to depend not only on the strength of the solution, but on the time during which it is allowed to act. If this time is too long, the plate may be badly fogged and stained. Speaking generally, from a quarter to three-quarters of an hour is the best duration of development, anything much longer being prone to give negatives which are not as clean and free from fog as one would wish.

Another point in connection with very dilute developers is their tendency to oxidize. The chief cause of oxidation is the air which is dissolved in the water used for dilution. This is easily seen by noting how much longer a dilute developer keeps its color if, instead of plain tap water, it is diluted with water which has been boiled briskly to dispel the air

dissolved in it, and allowed to go cool without agitation. The more water that we add to a developer the more dissolved air is given to it, and the more rapid, therefore, is the oxidation process, which means weakening of the developer, and in some cases, at least, staining of the plate. To prevent this, when a great deal of water is added, it is advisable to use, instead of water, a 1 or 2 per cent. solution of sulphite. But it is better still not to use such very dilute developers.

### *Need for Reversing the Plates.*

The necessity for rocking the plate during development is another matter which must not be overlooked. If development is carried out in a dish, with the plate horizontal, we know that if the dish is not rocked sufficiently during the operation, there is a great risk of the negative being spoiled by mottling. In a tank in which the plates are held horizontally, the rocking is equally necessary. In tanks in which the plates are vertical, there is little or no risk of mottling, it is true, even if the tank is left undisturbed during the whole time of development; but, on the other hand, there is a risk of getting a curious defect in the form of a line of dense deposit bordering the image where a fully exposed part comes against a less exposed portion. The sky line is very commonly affected in this way.

The only method which is known to be a complete preventive of this is to turn the whole tank and its contents upside down once or twice during development, and to leave it so; so that for part of the total time one edge of the plates is uppermost, and for part the other. It is to allow of this that so many of the tanks are now made either reversible in an outer container, or else completely watertight.

### *Care of a Metal Tank.*

A metal developing tank, if properly taken care of, should last almost indefinitely; but if neglected it will very soon become useless, however well made originally. Immediately after use it should be thoroughly washed, both inside and out, so that nothing but plain water, at any rate, is left on any part of it. It should then be placed where it can drain and dry, each part being put separately, so that no little pool of water shall accumulate anywhere within it. Only when it is quite dry all over should it be put together and put away.

A little powdery deposit sometimes forms on the inside of a metal tank. It does not seem to do any harm; but is, perhaps, better removed. A toothbrush forms as good an instrument for cleaning the rack and the corners of the tank as any. There is not the same objection to the use of hypo in a metal tank that there is in a porcelain dish, as the hypo is very easily washed off the metal, whereas it is extremely difficult to cleanse a dish from it. Acid hypo baths should in no case be used with metal.

### *Filling Racks in a Weak Light.*

One more hint may be added for the benefit of those who fill the plates into racks in the dark room by the light of a ruby lamp. It is not easy to see to put the the plates into the rack unless this is held very near the lamp, and then there is a risk of fogging the plates. But if the photographer sits down facing the lamp, and holds the rack in the line between his eyes and the lamp, with the grooves of the rack in that line, he will find that it is the simplest thing in the world to see to slip the plates into the grooves, even if the lamp is some distance away.

## MATT VARNISH FOR NEGATIVES.

One of the simplest methods of controlling the print is the application of matt varnish and a backing medium. In *Photography and Focus*, Mr. I. Y. Smart describes the method as follows:

The advocates of "pure photography" may say what they will, the fact remains that when we want to get pictures of "exhibition quality," if such a term may be permitted, a perfectly straight print from a perfectly straight negative very rarely gives us what we require. It is not that there is anything inherently wrong in "straight" work, but rather that the limitations of the processes we use are such that it is easier to make certain changes during printing than to carry out those changes on the subject itself, which would then allow the photography to be perfectly "straight."

The modern methods of gum printing and "oil" allow the photographer who uses them to introduce the most extensive alterations into his prints; so much so, that it becomes a very difficult if not an impossible matter to produce two prints alike. Moreover, these processes both give the user more control than many photographers care for—more, in fact, than they can very well manage. They would prefer a process which would allow them to make certain modifications in their prints, to hold back some parts and to bring out others, but still which, if left alone, would give them a plain and faithful reproduction of what was in their negative.

Such a method is provided by work on the back of the negative, which not only gives a great degree of control, but when once carried out allows any number of identical prints to be made, and allows us to use almost any printing process we may select.

The first stage in working on the back of the negative is to cover it with something which will allow it to take the pencil or stump with which that work is done. "Papier minerale," a kind of very fine textureless tissue paper, is often used for this purpose, but the preference of the writer is for matt varnish, which can be obtained from any photographic dealer. This is a varnish which dries with a fine ground-glass surface, on which it is quite easy to work with a stump or soft lead pencil.

A simple application of matt varnish makes no difference in the print which the negative will yield; all it does is to make printing a little slower. But if the varnish is tinted by means of a dye, and after being applied evenly all over is scratched away with a knife from the parts which we wish to print more darkly, a great difference can be obtained. The varnish must only be very faintly tinted or the effect will be over done. A few grains of aurine may be dissolved in an ounce or two of wood alcohol and kept as a stock solution. A drop or two of this will be found ample to stain a couple of ounces of the varnish. It is a good plan to have at least three bottles of matt varnish—one plain, one slightly and one more deeply dyed—and to be governed in the use of them by the extent of the required alteration.

The beginner's chief trouble will be to apply the varnish. There is a certain knack in it, but this is soon acquired. The negative should be held in the left hand on the outspread finger tips, one corner being just lightly caught against the thumb.

A large pool of the varnish is then poured into the centre of the plate, which is then tilted so as to cause the varnish to flow toward the thumb. It must not be allowed to touch the thumb or it will promptly flow down the photographer's sleeve, but as soon as it is near it the inclination is changed, so that it flows to the next corner on the left, then to the

next, and then finally to the corner nearest the right hand which is holding the bottle. As soon as it gets to that corner it may be tilted quickly so that as much as possible of the varnish may flow off into the bottle, and then being held by the two hands—by the "thumb corner" and the one diagonally opposite—it is quickly raised to a vertical position and rocked from side to side. In a few moments it will cease to drip, and when this takes place it may be put on one side to dry.

The chief causes of failure in this varnishing operation—which is actually quite a simple one and not at all difficult—are, first and foremost, attempting to do it with too little varnish on the plate. The pool should be at least half the width of the plate in diameter; and secondly, tilting the plate too much, so that the varnish tends to flow over the sides and get on the front.

If the photographer has any doubt about his ability to get the plate quickly and evenly covered without any overflow, he should provide it with a rim all round except at the corner at which the varnish is to be poured off, which rim can easily be constructed of lantern-slide binding strips, sticking them down on the glass side, so that half the width of the strip overlaps the edge of the negative, and then when dry folding this overlap back until it stands at right angles to the glass, and making joints at the corners with short pieces of strip. But there must not be the smallest hole at the corner, or the varnish will rush through. This edge is by no means a necessity, and the advice of the writer is not to have recourse to it, but rather to learn how to varnish a negative without, by coating one or two plain glasses or spoilt negatives for practice.

If any of the varnish does get on to the film side, it should be wiped off, before putting the plate up to dry, with a clean dry duster, following this up, if necessary, with a wipe with some cotton wool moistened with ether or with gasoline. Very often the whole of the varnish can be removed with the duster alone, but some varnishes differ from others in this respect.

No attempt should be made to do any work on the varnished negative until the varnish has hardened. It will dry, to all appearances, in a few minutes, but is best left for some hours, as at first the coating is tender and easily damaged. It is a great help, when work on it is being undertaken, to fix the plate in some kind of retouching desk—a make-shift one will do, provided it holds the negative at a convenient angle, and allows the greater part of the light to come through it and not fall on it.

When a negative has been evenly coated with slightly tinted varnish, the work on it may take two forms. Those parts which are required to print darker than the rest may have the varnish above them scraped away. While where the varnish is left we may put lead upon it with a pencil or stump, and so get particular parts to print lighter.

The most convenient tool for removing the varnish is one of the pen-nib print trimmers which are supplied by the big dealers. The trimmer consists of a kind of penholder in which is inserted a nib with two sharp edges meeting in a point. The outline of the part to be removed may be traced with the point, and then a broader line cut with one of the edges, using the blade nearly flat. It is more convenient to make just this broad line and any of the fine work on the retouching desk, clearing away the patches of varnish inside it afterward, when the negative may be laid flat on a table for the purpose. It is best to remove all the varnish that has to be removed by scraping, and not to use a solvent for the purpose, as this introduces the risk of a drop of the solvent getting on some part where the varnish

is to remain. This would necessitate removing all the varnish and starting *de novo.*

The next stage is the application of blacklead to those parts which we wish shall print lighter. For this purpose the writer prefers a BBB pencil, supplemented when occasion arises with some blacklead and a stump, or the finger tip when the work is very broad. The first thing the beginner will note is that what looks like a great deal of blacklead on the surface does not turn out to be very much on looking through the negative.

## TRADE NOTES.

A NEW PHOTOGRAPHIC WONDER. The Seneca Adapter (hingeless) for Film Packs. By using the Seneca adapter (hingeless) for film packs the plate camera user is enabled to convert his camera into a film camera, with the added convenience of doing away entirely with the dark room. This adapter

is very similar in appearance and general construction to the ordinary plateholder of the same dimensions. It consists of a cherry wood frame with a slide and light trap in slide opening, which absolutely prevents fogging the film. The slide has no handle to crack or break off. Firmly and permanently fastened to the back of the frame is the film pack holder, made of aluminum. It is light tight. The film pack, after being inserted in the adapter, is tightly held in position by two clips. After the film pack and adapter are in position the exposurers are made exactly as if plates were being used. Whenever it is necesssary to remove the film pack from the camera for any purpose, this may be done by simply inserting the slide and removing the adapter. The use of the Seneca Film Pack Adapter gives the added advantage of being able to use the ground glass for focussing purposes, while using film for exposure. The slide having been inserted, the adapter may be removed from the camera and the ground glass placed in position. After the image has been sharply focussed, the ground glass is removed and the adapter replaced in the camera. The slide is then withdrawn and the film is ready for the exposure. The Seneca Film Pack Adapter may be used with Seneca, Ingento, Premo, Century, and all other leading makes of plate cameras. The prices are reasonable, ranging from $1.00 in the 3¼ x 4¼ size to $2.00 for the 5 x 7. A postal addressed to the Seneca Camera Co., Rochester, N. Y., will bring a circular fully describing this invention.

E. A. FRANK, of Augusta, Ga., the American agent for the celebrated Rodenstock Double Anastigmat, advises that he has in press, and ready for delivery within a few days, a new booklet describing this well-known German-made lens. While the Eurynar ranks with the highest grade lenses in quality, it has a price advantage that makes it well worth inquiring into. Send for the new booklet and learn more about it.

ONE of the most interesting exhibits at the Rochester Convention, a notice of which was unfortunately crowded out of our August issue, was the new Burke & James Developing Tank. Besides a new automatic locking top, this tank is fitted with a thermometer and a Watkins Thermo Indicator, by which means perfect negatives are guaranteed every time. It looks like the last word in tanks, and is sure to become very popular. This firm also showed for the first time the new Ibiso shutter, the neatest little shutter for small hand cameras that we have yet seen. It is manufactured by the maker of the Koilos shutter, which guarantees its quality and reliability. It retails at $8.00 and should quickly find its way on to innumerable hand cameras.

THE ANSCO COMPANY advise that, owing to the rapid growth of the business done at their Minneapolis branch, they have had to move into larger quarters, and are now at 14 Fifth Street, Minneapolis.

A DISPLAY of prints made on a new and delicately tinted buff stock attracted great attention at the Rochester Convention. This stock has just been brought out by the Kilborn Photo Paper Company, the originators of the Sepia-in-First-Development process. This process was the only new thing shown at the Convention in connection with developing papers.

We know of no photographic paper that yields such a wide range of beautiful tones as Kruxo papers. It is possible to obtain almost any tone desired, from black and white through rich browns to a red chalk, merely by varying the exposure and developer—and all out of the same box. An inquiry addressed to the Kilborn Photo Paper Company will bring full information.

# WILSON'S PHOTOGRAPHIC MAGAZINE

A MONTHLY MAGAZINE FOR PRACTICAL PHOTOGRAPHERS

Founded in 1864 by EDWARD L. WILSON
L. W. WILSON, Publisher and Proprietor
T. DIXON TENNANT, Editor

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## EDITOR'S TABLE.

WE are asked to announce that Mrs. Kasebier will be glad to devote one night a week during the coming winter to a class in composition open to all women photographers, free of charge. This is a most unusual opportunity, and Mrs. Kasebier's wonderful knowledge of composition and her ability to teach it will certainly fill her studio with eager pupils. As it is desirable to begin the course at once, early application for particulars should be made to Mrs. Kasebier at 315 Fifth Avenue, New York. Professional women photographers are cordially invited.

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WE have received several complaints lately from photographers who have paid money to canvassers, who have promised them a year's subscription to this magazine, with one or two other magazines and a hundred mounts or fans, etc., thrown in, all for the regular subscription price to the magazine, only to discover that they had been victimized by a fraudulent canvasser. This magazine does not employ canvassers, and the only safe way to subscribe or renew a subscription is direct to the office or through a reputable dealer.

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*The Photographic Annual*, 1909, incorporating, *The Figures, Facts, and Formulæ of Photography*. Fifth edition, extended, largely rewritten, and revised to June, 1909. Edited by H. Snowden Ward. 287 pages; paper covers, 50 cents; postage, 8 cents. Cloth edition, $1.00; postage, 10 cents. New York: Tennant & Ward.

*The Photographic Annual* occupies a place all its own among the photographic year books, in that it offers no articles or miscellaneous illustrations, but is a complete reference book wholly made up of figures, facts, formulæ, tables, and working methods covering the practice of photography. These are classified and arranged in sections under different branches of work, so that the photographer can at once find any item desired. For example: The section devoted to "Artificial Light Photography" gives thirty-one paragraphs on the make-up of flash powders and their many uses, the fireproofing of fabrics for flash bags, outdoor exposures at night, and so on. Similarly, the section dealing with "Developers" gives over 100 selected formulæ for plates, films, and papers. Such a book has long been wanted and the cordial welcome given to the first volume, published a year ago, will doubtless be extended to this second volume. Although the two volumes are similar in plan and arrangement, the preface tells us that two-thirds of the text in the 1909 volume is new or revised. The cloth-bound edition is interleaved with writing paper for notes or additional formulæ.

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WE commend the following letter to the attention of every woman photographer, and would urge them to get into correspondence with the officers of this new organization, who will be only too glad to give further information regarding the aims and objects of this organization.

*To the Women of the Profession:*

The movement toward uniting the women photographers of the country, which began in a modest way at the Detroit Convention in 1908, has resulted this year, at the National Assembly at Rochester, in the formation of a section for the purpose of advancing their art. "In union there is strength," and a good fellowship among co-workers is sure to prove of benefit to all.

The following officers were elected:

President, Mary Carnell, 1314 Chestnut St., Philadelphia.

Vice-president, Belle Johnson, Monroe City, Mo.

Secretary and Treasurer, M. Estelle Jenkins, 115 N. Park Ave., Chicago.

Chairman, Eastern Section, Gertrude Kasebier, 315 Fifth Avenue, New York.

Chairman, Middle Section, Katherine Jamison, Centre and Highland Aves., E. Pittsburg, Pa.

Chairman, Western Section, Iola White, Kansas City, Mo.

Those who did not participate in the proceedings at the National Convention are herewith heartily invited to join the federation, which has already representatives in nearly every State in the Union. It is hoped that each woman photographer in America will promptly communicate with the chairman of her section or with the Secretary, M. Estelle Jenkins, 115 N. Park Avenue, Austin Station, Chicago, Ill., that she may be informed of the full purpose and plans of the Association.

Cordially yours,

MARY CARNELL,
President.

August 23, 1909.

By F. Milton Somers, Cincinnati, Ohio

# WILSON'S PHOTOGRAPHIC MAGAZINE

FOUNDED IN 1864 BY EDWARD L. WILSON

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## WOMEN IN PHOTOGRAPHY.

ONE of the most notable features of the great convention at Rochester was the unusually large attendance of women and the important part they took in the proceedings.

For the first time in the history of the Photographers' Association of America the exhibits of the women photographers were hung together—and made a remarkably good showing.

One of the most interesting and instructive, as well as best attended demonstrations was given by a woman.

At the first Congress of Photography one of the delegates from the State of Missouri was a woman.

Since the adjournment of the Rochester convention active steps have been taken towards the formation of a regularly organized women's section of the P. A. of A. We hope to see this section grow to be a very powerful factor in association affairs.

Photography as a profession for women offers unusually good opportunities. Excepting, perhaps, newspaper photography, which calls for more than feminine endurance and impudence, there is nothing that cannot be done by a woman with a camera, as well, and in some cases, better than a man.

The portraying of women and children—the most frequent sitters—is essentially women's work. In home portraiture, who can have a better eye for composition in this class of work than a woman?

The number of women engaged in photography is much greater than is generally supposed, and is increasing very rapidly. It is desirable, and may become necessary, that they have an organization for the consolidation and advancing of their own particular interests—the present organizations being very much "of the men, by the men, and for the men."

Of course, we are aware that the photographer's wife has very often had a big share in studio work and management, but when the photographers gathered together at convention times their better halves were conspicuous by either their absence or their silence. But this is to be changed, and women who are vitally interested in photography are to become more intimately connected with its advancement.

To quote the most prominent woman photographer in the field—Mrs. Kasebier: "The purpose of our organization is, by coöperation, to strengthen and develop the artistic, ethical, and business side of our work; to practically demonstrate the value of exhibitions, thoughtfully conducted, as a stimulus to study and effort; to create opportunities for mutual criticisms and exchange of thought along these lines; to encourage other women who wish to enter our profession."

## SPACING IN PORTRAITURE.

"ART," says Emerson, "is Nature passed through the alembic of man," and the artist may be compared in his function to a cook, whose business it is and, using all his skill and taste, to serve to take Nature in the unprepared state, her up to the expectant connoisseur, now as a delicious landscape, quivering with luminous colors, of hills laced with silver streams—hills of lapis-lazuli and emerald against a sky of turquoise; now as a bacchanalian scene from Arcady, full of joyous exhilaration—an harmonious interchange of rich forms and beauteous lines; or, again, as a fresh and graceful presentment of some sweet belle of the day.

Thus, the personal note is ever the dominant note in Art, by which the artist stands or falls, judges and is judged.

Everything, therefore, depends upon the manner in which the artist presents his pictorial fare; it should tempt the spectator to taste and taste again with ever keener relish—a rich banquet followed neither by nausea nor a furred tongue.

Common sense tells him that the masses and lines must be harmonious and pleasing, and the *tout ensemble* attractive at the first glance. As Sir Joshua Reynolds insists, "A picture should please at first sight, and appear to invite the spectator's attention; if, on the contrary, the general effect offends the eye, a second view is not always sought, whatever more substantial and intrinsic merit it may possess. . . . We must take care that the eye be not perplexed and distracted by a confusion of equal parts, or equal lights, or offended by an unharmonious mixture of colors."

### *Decorative Design.*

To accomplish this end in the most effectual manner, the artist, whether painter or photographer, ought never to lose sight of the fact that, whatever the subject of his picture, it must be *fundamentally an agreeable decorative pattern* of lines, lights and shades, and colors. Every part of the picture must be carefully planned, so as to have interest and importance; there must be, as a famous artist pithily put it, "*no spaces to let.*" Used with economy and thought, they must become as precious as those on some ancient Greek coin. The art of pictorial composition is, *par excellence*, the art of putting the right thing in the right place, and the artist must make many experiments and erasures, always studying the picture, as a whole, and the effect from a distance. The number of decorative patterns he will be able to produce is practically limitless—limited, indeed, only by his own individuality.

### *Light, Shade, and Space.*

Now, a portrait is just as much "a picture" as a composition of several figures, and beauty of effect, harmony, and balance are every whit as essential as in a more elaborate composition. Therefore, having caught his sitter and decided in what mode he should be dressed, the portraitist must now consider how to serve him up pictorially to the best advantage. The spaces around the figure, the quantities and disposition of light and shade and color, must receive earnest attention, as it is on them that an agreeable effect, or the reverse, depends. Delaroche's remark that out of mud he could make the skin of a Venus, if he were allowed to choose the surroundings, illustrates the importance of the setting of a figure.

Having determined the size of his print, the portraitist's first care must be the space that the sitter's figure shall

occupy in it. With too much ground and background space around it the figure is dwarfed and looks like a crow in the wilderness. Thus, the head of the sitter should be so placed in the picture that too much empty background does not occur above it, when he will appear to be sinking earthward, or, on the other hand, too little, when the specator will have an uncomfortable feeling that on the slightest movement the figure would knock its head against the ceiling.

### *The Tone of the Background.*

Should the tone of the background and hair both be dark, and therefore merged into each other, the portraitist can afford to allow a little less space of background above the head than if there were a strong contrast of light and shade between them. Much, however, must be determined by varying circumstances and the taste of the photographer, as in an open-air portrait it would be judicious to have a considerable space above the head to suggest the sky, and, of course, a group of several persons demands more space proportionately above the heads than a single figure.

The portraitist will find it advisable, also, to have a greater quantity of background space *in front of the figure than behind it.* This treatment of the background, unless in very exceptional circumstances, was the universal practice of the great portrait painters. The contrary arrangement results in a curiously irritating and inharmonious spacing, owing to the importance it gives to the back of the figure.

On studying the portraits of the great masters, the photographer will find that the general shape of the figure on the canvas conforms more or less to a pyramid, with the head at the apex, the spaces of background, whether light or dark, being used to aid the decorative scheme of the whole. In a bust portrait it is not expedient to show less of the body than a head's length, a head and a half below the chin being a very agreeable quantity; and in the portrait of a lady the body should not be severed at the waist—a little above or below it producing a much better effect.

### *The Hands.*

The hands, at all times a valuable pictorial asset, give the same character and interest to the lower part of the picture as the face does to the upper. They form two exquisite spaces of half-tone, characteristic or beautiful, as the case may be, which the portraitist who is wise will use to the best advantage to aid his pattern of lights and shades. It will sometimes happen (as is frequently seen in Vandyck's portraits) that part of the hand has to be cut off by the frame of the picture, and the photographer should not hesitate to do this if the effect demands it and the result be not unpleasant nor incongruous. Care should be taken that they appear of the right proportion to the head (*i. e.*, as long as the face from the hair to the chin), and not too large, this latter fault arising from their being taken when too close to the camera.

"Painting," said Sir L. Alma Tadema once to the present writer, "is all a matter of proportion—proportions of forms, of lights and shades, and colors." And the photographer would do well to consider the proportions of his spaces of light and shade in the arrangement of his portraits, as contributing much to the general effect and the pleasing "at first sight."

Sir Joshua Reynolds, who, when studying in Italy, made numerous sketches with the object of discovering the proportions of light and shade in the pictures of the ripest masters of the Venetian school, and to which, consciously or not, they adhered, summed up the result of his investigation in the

following words: "Without regard to drawing or subject, the most effective general rule seems to be to allow not above one-fourth of the picture for light (including principal and subsidiary lights), to keep another quarter as dark as possible, and to reserve the remaining half for middle tint or half shadow."

### *Correct Proportions of Light and Dark.*

No matter how distributed, however, there must always be a certain balance in the proportion of light to dark, both in quality and quantity. If there be much dark background and drapery, the spaces of high light must be bright and concentrated to restore the equilibrium; and, conversely, a quantity of light middle tone may be equalized by a deep note of intense black, as was the method of Turner in "The Fighting Téméraire" and other pictures, where the buoy, by its blackness, adjusts the balance, in a condensed form, of the light spaces of sea and sky. The method (almost a mannerism) of Rembrandt was the opposite to this, and consisted of a concentrated light balancing many deep transparent tones of varying intensities.

### *Concentration the Keynote.*

The portraitist must bear in mind that concentration, not diffusion, of light is the only way to secure an effective composition, a scattering of many high lights about the picture being both irritating from a decorative point of view, as well as untrue to Nature. The spaces of highest light must therefore be used sparingly, and placed near those points to which it is desired to give interest, the most important being generally located near the face. Anything in the nature of glitter must be rigorously rejected, as detracting from the dignity and simplicity always found in Nature.

Of almost equal consequence as the spaces of high light is the background space, which sets the tonal keynote of the whole composition. Breadth, so that the spectator's attention may be focussed on the figure, is of paramount importance here, but at the same time there must be gradation to prevent monotony; and in the case of an open-air portrait, the landscape background may be chosen so as to help immensely the scheme of light and shade.

In no part of the composition, perhaps, is it so necessary for the photographer to exercise his taste as in the quantity of space and tone value of the background: it is the setting which should show up the individuality of the sitter to the best advantage, yet its very simplicity makes its choice a difficult one.

### *Position of Dark Masses.*

The spaces of greatest dark are most effective when they fall on the hair or drapery of the figure. With equally good effect they may be of large size and medium intensity, or occupying a small space, yet deep in tone. If of the first kind, they would fill the greatest part of the composition—as much or more than the background space itself.

That dry and hard relief practised by the earliest Renaissance painters, in which a light background was opposed to the shadowed side of the figure, and a dark ground to the illuminated side, was, when Art reached its ripest stage, abandoned for the much more valuable qualities of the mystery and subtle tone values of Nature, as exemplified in the work of Rembrandt and Velasquez, whereby the outline of the figure often became melted and lost in the tone of the background.—JULIUS ROBINSON in *Amateur Photography*.

## BULLETIN—WOMEN'S FEDERATION—PHOTOGRAPHERS' ASSOCIATION OF AMERICA.

THE Women's Federation of the P. A. of A. is destined, we hope, to greatly further the interest and aims of the women in our profession. The benefit derived from the exchange of prints last year warrants the continuance of the arrangement as an important part of the season's progress, the members pledging themselves to send on to the next member, after a stated interval, the print they have themselves in turn received. Coöperation in this "Circle" is optional, but the interchange of ideas and technique is valuable. Our gift of observation can be cultivated, our ambition stimulated by being familiar with the art and orginality in what is being done by our fellow-workers. We must assist individually to draw our federation into an organic whole, alive and vital in its every part.

MARY CARNELL,
Pres. Women's Federation, P. A. of A.

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"The Purpose of Our Organization:" By coöperation to strengthen and develop the artistic, ethical, and business side of our work. To practically demonstrate the value of exhibitions thoughtfully conducted, as a stimulus to study and effort. To create opportunities for mutual criticisms and exchange of thought along these lines. To encourage other women who wish to enter our profession.

GERTRUDE KASEBIER,
Chairman of Eastern Section.

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While woman's place in our profession is so thoroughly established and so universally accepted as an accomplished fact that it needs no separate section of the P. A. of A. to gain recognition, it is certain that great good can come from this movement.

Those of us who have exhibited prints in the past have asked no favors because we were women, nor hesitated to exhibit because our work was made a part of the general display. There is no doubt, however, that if at the next Convention the Women's Section makes a separate display, it will attract much greater attention because it *is* separate, thus calling specific attention to the fact that it is the work of woman, and so offering a comparison.

In entering into such a movement it is desirable that our exhibition be as complete and representative as possible. Therefore, we are asking you to begin *now* to lay aside negatives which you consider worthy, and that you continue to do this until next May. Then compare and cull these negatives till you are *sure* you have selected the *best* of them, and send three prints suitably framed for display.

We ask you to do this for the honor of the Women Photographers of America.

BELLE JOHNSON,
Vice-President.

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To create a congenial feeling among the women of our great organization, and to give each an opportunity to advance. It will also give us prestige among our fellow-workmen as well as with our customers. An incentive to be the best.

EOLA W. WHITE,
Chairman of Western Section.

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As members of the P. A. of A. we should feel an individual responsibility in being co-workers and contributors.

We do not consent to enjoy its privileges nor accept recognition as a mere courtesy. Our aim is to be fit and

capable, and we stand on our own merits.

This should be an incentive to every woman photographer to keep pace with the progress of our profession, hence we ask the coöperation of all earnest women workers. There is an abundance of good material to be enlisted.

KATHERINE JAMIESON,
Chairman of Middle Section.

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The benefit each one of us may expect to derive in coöperating with other women of our profession is obvious, as we can make more progress by interchange of work and thought.

We have made the membership fee fifty cents for the year, to cover postage, stationery, printing, or incidental expenses. This amount can be sent to me with your name and address. Also kindly state whether you wish to join the circle or simply become a member. Shall be most glad to give any further information.

M. ESTELLE JENKINS,
Sec. and Treas., Women's Federation, P. A. of A.

## NOTES ON TANK DEVELOPMENT.

THE many new pieces of apparatus which have been put on the market, writes T. Thorne Baker, in *The Amateur Photographer*, during the last few months for tank development point clearly enough to the popularity of this method of dealing with one's exposures. That it has many advantages none can deny, and those who use the tank method know what great control one may have when dealing with a number of plates or films which have received quite unequal exposures.

### *Daylight or Dark-room.*

A point about many of the new tanks introduced for time development is that, once having been charged with plates and developing solution, a lid can be attached to render the contents quite light-tight and water-tight, so that, for the time being, operations can be carried out in "daylight." Moreover, six or a dozen plates can be developed simultaneously.

As a matter of fact, however, many amateurs are usually by no means keen on getting away from their dark-rooms, although the tendency of modern photographic manipulation is to do away with this familiar apartment altogether. Tank development may be measured by time, in which case the dark-room is only needed for filling the tank; but it may also be conducted in the dark-room and the progress of development watched at intervals. The light-tight tank in this case is a great advantage, as it screens the plates from the rays of the dark-room light, which, given ample time, may very likely lead to a small amount of fogging, while gaslight printing or other work may, of course, be carried out in ordinary light in the intervals between each examination, the lid having been duly replaced.

### *What is "Tank" Development?*

Several amateur photographers I have known to hesitate about trying tank development, as the term is not sufficiently descriptive to enlighten one as to its exact meaning. But, to put things briefly, any suitable non-staining developer becomes a "tank developer" if we merely dilute it considerably with water, so that its action is extremely slow. A number of plates stood on end verti-

cally in a grooved tank or trough can be developed in a simple and sure manner by merely "soaking" in such a dilute developer, and, moreover, without attention or rocking.

At the same time, a clean working solution is indispensable. Glycin is the developer most frequently recommended for the purpose, and appears to be the most suitable. A well-known formula for a glycin tank developer is as follows:

*Stock Solution.*

| | |
|---|---|
| Distilled water . . . . . | 8 ounces. |
| Sodium sulphite . . . . . | 2½ ounces. |
| Glycin . . . . . | 1 ounce. |
| Potassium carbonate . . . | 5½ ounces. |

For use, take 1 ounce of the stock solution and mix it with 40 ounces of water.

A developer such as the above will cause the image to appear—in the case of a normally exposed plate—in about a quarter of an hour, while complete development may take anywhere from one to two hours.

### *The Dilution of the Developer.*

If it is desired to prolong development more—say, for eight or twelve hours—all night, in fact—the developer may be diluted with 200 to 300 parts of water.

For those who prefer using the popular one-solution developers now on the market—*i. e.*, rodinal, azol, victol, certinal, rembrol, etc.—it will be found sufficient to dilute them in the proportion of 1 to 100 if fairly prolonged development is desired, or 1 to 60 if quicker action is necessary. They all have a tendency to produce soft negatives, and the plates should be left in the tank until they are developed thoroughly right through. Good printing quality is thus secured. If the negatives are withdrawn too soon when using any of these developers—*i. e.*, when the surface detail is apparently fully developed—the results are likely to be disappointing, owing to the thinness of the deposit.

When the stronger solution is used, or, indeed, when any tank developer is employed, uneven development is avoided by occasionally turning the the tank and its contents upside down and allowing the action to continue in that position.

Temperature has a considerable effect on development, and though in using a strong solution its influence may not be noticed, the difference is a serious one where we are dealing with time, like an hour or longer. A few notes made on different occasions on measurements with a thermometer, and the time of development, will always prove useful, while the "time thermometer" just introduced by that ingenious worker, Mr. Alfred Watkins, will be found an extremely useful little piece of apparatus where variations in temperature are concerned.

### *The Advantages of Dilute Development.*

What is the effect of dilute development on the image? It slows the action, and the image will be softer in character. One might think from this that by extreme dilution the image would be too soft altogether, but this is not the case, and, moreover, several distinct advantages obtain. One of these is that the action of the developer takes place throughout the film; there is little doubt that in rapid development—say three minutes—a lot of the action is more or less superficial, and the surface effect causes reduction at such a rate that the underexposed portions have not time to appear with as much force as they might.

In tank development with dilute developer, however, the solution has ample time to penetrate the entire film,

and action goes on simultaneously in its entirety. The building up of density is less rapid, proportionately, in the high lights than is the case with a concentrated solution, as the ratio of density to exposure—on which the H. and D. development factor really depends—is lessened as the concentration diminishes. This admits of one giving those parts of the image corresponding to the period when the inertia of the plate has been only just overcome by the light far longer to build up. The result is, that in cases of underexposure we get much more shadow detail and far less harsh contrasts if we employ tank development.

Now let us consider slow development from the "latitude" point of view. There is obviously more control in developing a plate if we can watch it for, say, an hour than if development is complete in three or four minutes. Moreover, assuming the plates to be examined every ten minutes, a very much overexposed plate can readily be removed from the tank as soon as its fault is recognized, and transferred to another dish for separate treatment with a highly restrained developer—and so on. Similarly, a plate which shows little or no signs of the image after the other plates have developed to some extent may also be removed for special treatment or forcing, etc.

Next, to come to practical details. It is desirable to have plates in a vertical position during development, as they are prone to various forms of markings if kept horizontal and face upward, due to uneven action of the solutions. It is, of course, convenient to treat several plates at once, hence the usual form of apparatus is a metal, porcelain, or glass trough with grooved sides, into which six or a dozen plates can be fitted, and the tank then filled up with developing solution.

Some workers prefer to fill the tank first, and put the plates in afterward. In either case it is the formation of bubbles we wish to avoid. After a minute's immersion, each plate should be withdrawn from the trough and examined for bubbles, these being removed—if present—with a soft brush or wad of absorbent cotton.

As regards the tank development of films, there is a variety of methods of dealing with them, the best of which is undoubtedly that prescribed by the Kodak Company in conjunction with their film development tank.

All grooved troughs or racks which may be used for tank development should be kept rigorously clean, as otherwise they may become the source of much trouble, such as stains, markings, fog, etc. Tanks should be thoroughly cleaned out from time to time with hot water, or, if of glass or porcelain, with water containing about 5 per cent. of hydrochloric or nitric acid. A test-tube brush will be found very useful for getting into the corners and grooves.

Any sort of metal apparatus should be carefully washed each time after use, and dried with a clean cloth.

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*Washing Roll Film.* To do this, writes "Viewfinder" in *The Lancashire Post,* the film may be well rinsed after fixing to remove surface hypo, and then be rolled loosely together and dropped, edge up, into a 2-pound jam jar filled with water. The jar is put under the tap and a rubber tube carried down from the tap through the centre of the roll to the bottom of the jar. The tap is turned on, and a moderate stream of water will be found to keep the film moving, so that the water has access to both faces. As the water enters at the bottom and flows out at the top, there is no danger of the hypo settling at the bottom. When the rubber tube is being inserted, one must be careful not to scrape the face of the film.

## SOME COMMON CHEMISTRY TERMS EXPLAINED.

CHEMISTS say that anything which can be weighed is *ponderable* or *ponderable matter.* Air and other gases can be weighed just like liquids or solids. They divide all kinds of material or matter into two great classes. In the first they put all such things as they cannot spilt up into two different kinds, and call them *elements:* Thus, gold and silver are elements, for neither of them can be split up or separated into anything but gold or silver, as the case may be. But water can be split up into two different elements, viz., hydrogen and oxygen. Chalk can be split up into a metal called calcium, carbon, which we are familiar with as charcoal, and oxygen, a gas which is one of the gases in the air we breathe.

Hence water and chalk are called *chemical compounds.* Such compounds are *homogeneous, i. e.,* the same composition throughout, so that it makes no difference whether we split up a large or a small quantity, the composing elements are also present in the same proportions throughout. But sand is a *mechanical mixture,* and a teaspoonful of sand from one part of the coast would not yield the same elements as that from another part of the coast.

*Emulsion.* If oil and water be poured into the same bottle and vigorously shaken, the oil is broken up into tiny globules, and they intermingle with the water, forming a milk-like mixture. Such a mixture would be called an emulsion by chemists. The process of churning milk collects from the milk the many tiny oil-like globules, and forms a more or less solid mass of butter. The word emulsion is used in a slightly different sense by photographers. They take a solution of gelatine in water, and add to it solid particles, such as silver bromide, and by vigorous agitation scatter these solid particles more or less uniformly throughout the gelatine solution, their aim being to separate each particle of the solid silver salt by a layer of gelatine. Or, in other words, to surround the solid particles by an envelope of gelatine.

If we mix some powdered chalk with some table salt we have a mechanical mixture. We can separate these by *extraction,* that is to say, by throwing the mixture into some fluid which will dissolve one and not the other. In this case we might use water as the *solvent* or dissolving liquid.

A filter paper is arranged in a funnel, and the mixture poured on the filter, when the *filtrate, i. e.,* water and dissolved salt, passes through the pores of the paper, while the chalk would be collected on the paper. If to the filtrate, in this case, we add a little silver nitrate in solution, we get a white curd-like solid *thrown out of solution,* or *precipitated.* This *precipitate* we can collect by again filtering.

Solids are also divided into crystalline, viz., those which take a definite shape bounded by flat surfaces, and amorphous, *i. e.,* which do not take any constant or definite shape. Examine a few grains of sugar, salt, saltpetre, silver nitrate, potassium bromide, with a hand glass, and note that while the sizes of the particles of any one substance vary, yet their shapes and angles are the same, though the crystalline forms of different substances vary. Compare these with charcoal, gelatine, etc. In some hot water dissolve as much of any one of the above crystalline substances as the water will take up, and set aside in a cool and airy place. In time the water will pass off into the air, *i. e., evaporate,* and the crystals reform themselves again, showing the same shapes as before.

The *solubility,* or amount of a solid

which a liquid will take up, depends on the temperature of the solvent. As a rule, the hotter the solvent the more the solubility. Common table salt, however, is not very much more soluble in hot than in cold water, whereas benzoic acid is freely soluble in hot, but little soluble in cold water. In some hot water dissolve as much table salt and also benzoic acid as the water will take up, and filter the solution while hot. As the solution cools, nearly all the benzoic acid, and very little of the salt, will crystallize out. By collecting these crystals, and repeating with another lot of hot water, all the benzoic acid can be crystallized out before the salt begins to separate. This operation is *fractional* or *differential crystallization.*

Similarly a mixture of water and alcohol can be separated by heating to a temperature a few degrees below that of boiling water, when the alcohol will boil and pass off, or distil before the water begins to pass into steam. This is called also *fractional distillation.*

Many crystals contain a definite quantity (*i. e.*, proportion) of water, hence called hydrated, which can be wholly or partially driven off by heat. That part which can be separated in this way is called *water of crystallization*, and the remaining water (if any) is the *water of constitution*, which cannot be removed without breaking up the substance. When all the water is driven off, the substance is then spoken of as "dry." Some substances, such as soda sulphate, exist in several forms, *e. g.*, the *anhydrous* or dry salt, the hydrated form which has seven parts of water, and yet another form called Glauber's salt, which has ten parts of water.

Some *hydrated crystals* slowly give up their water of crystallization and fall to powder. This is called *efflorescence.* Other substances, crystalline and amorphous, attract or absorb water and become damp. Such are called *deliquescent* substances. (Obviously these should be kept in solution if they do not deteriorate when dissolved, otherwise they should be stored in well-stoppered bottles, or if corks be used, the corks should be rendered air-tight by waxing, etc.) If they attract and absorb moisture without changing from solid to liquid they are called *hygroscopic.* But some liquids which attract and absorb water are also called hygroscopic.

*A saturated solution* is one in which the solvent will not dissolve any more of the substance dissolved. A hot saturated solution will, as a rule, throw out of solution some of the dissolved substance, as the temperature falls, because the degree of saturation generally falls with the temperature. If a saturated solution of Glauber's salt be made with hot water, and the flask be corked and allowed to cool slowly without moving, it will not deposit any solid. But if the cork be then removed from the cold solution, particles of dust in the air will enter the flask and form centres of disturbance, and the solid is then thrown out of solution. The same thing occurs if a small crystal of the salt be thrown into the cold *supersaturated* solution.

*Strength of solution* is stated either in parts or percentages. We may thus have a 20 grain per ounce solution, or a 5 per per cent. solution. The latter means that 100 parts *by weight* of the solution contains 5 parts *by weight* of the substance dissolved, be it liquid or solid.

In this connection it is useful to remember that a fluid (measured) ounce of water weighs 437½ grains. But for all ordinary purposes we may reckon 1 ounce, 1 dram, fluid, as 500 grains, or 2 ounces 2 drams, as 1000 grains. So that a 5 per cent. or 5 in 100 or 50 in 1000 would mean 50 grains of the solid dissolved in, say, 2 ounces of water, and then water added to bring the total bulk up to 2 ounces 2 drams.

Many substances, when exposed to the

air, will draw from it some oxygen, and combining with it are *oxidized.* Many of our developing agents in solution, such as pyrogallol or "pyro," oxidize, and so deteriorate. If we melt some lead in an iron ladle its surface becomes dimmed and dusted over with an oxide of the metal. This oxide of lead can be made to part with its oxygen by suitable means, *i. e.*, it can be *deoxidized* or *reduced.* It will at once be seen that this chemical operation of reduction is not the same thing at all as that meant by the photographic operation of reducing a print or negative. This is more properly *removal by solution.*

*Oxidizers* are substances which readily part with their oxygen to the body to be oxidized, and they themselves are consequently reduced. It is a case of robbing Peter to pay Paul.

*Reducers* are substances having a strong affinity for oxygen.

*Combustion* may be defined as chemical combination accompanied by heat, light, or both together.

*Distillation* essentially consists in converting a liquid or solid into a vapor, and recondensing it in some other vessel. When a substance passes into vapor or evaporates at ordinary temperatures and atmospheric pressure it is called a *volatile* substance, *e. g.*, camphor, ammonia solution.

*Sublimation.* When a solid (such, for instance, as sulphur, iodine) is heated it passes into a vapor which can be reconverted to a solid on cooling. We may, therefore, regard sublimation as a kind of distillation of solids.

*Evaporation.* When a liquid passes into vapor it evaporates. Heating the liquid generally hastens the process. When the liquid contains several different substances these may begin to separate, precipitate, or crystallize out at different stages of concentration. The liquid which yet holds bodies in solution is the "mother liquor."

*Levigation* primarily means grinding to powder, but it is often extended to include powdering two solids which are insoluble in water, and then separating by washing in a gentle stream of water which carries the lighter body away, while the heavier particles fall down, as in gold washing.

*Lixiviation,* primarily applied to dissolving out the soluble part of wood ashes (*lix*, lye), but now used very much in the same way as extraction.

*Fusion* is only another name for melting. When smelting or melting metallic ores some substance called a *flux* is added to assist fusion by attracting or combining with some of the elements of the ore.

*Ignition.* In ordinary language we speak of igniting, *i. e.*, applying a light, *i. e.*, burning body, to something else, *e. g.*, gas. When the chemist strongly heats in a hard-glass tube or in a platinum vessel some substance, he calls this process ignition.

*Diffusion.* The molecules of two different gases when brought together either combine or they mingle with each other by diffusion. Similarly two liquids diffuse; or a liquid (such as a developer) may penetrate a solid body, such as the film of a negative, by diffusion.

*Element.* A substance which cannot be split up into two or more substances, *e. g.*, silver, iron, lead.

*Compound.* A substance which can be split up into two or more substances, *e. g.*, silver chloride, iron sulphide, lead oxide.

*Atom.* The smallest quantity of an element which we can conceive to exist.

*Molecule.* The smallest quantity of a compound which we can conceive to exist.

*Atomic Weight.* The weight of one atom of an element as compared with the weight of one atom of hydrogen.

*Molecular Weight.* The weight of one atom of a compound as compared with

one molecule (*i. e.*, *two* atoms) of hydrogen.

*Specific heat* of a substance is the quantity of heat required to raise a measured volume of the substance through 1° C., as compared with the quantity of heat required to raise an equal volume of water 1° C.

The *specific gravity* of a body is its weight as compared with an equal bulk or volume of water.

*Isomorphism.* When two different substances take the same crystalline form they are said to be isomorphic. This point of form resemblance is usually accompanied by other chemical and physical similarities. The alums may be quoted as examples.

*Isomerism.* When two or more substances have the same percentage composition and the same molecular weight but have different physical and chemical properties, they are called *isomers*, or *isomerides*. If they have the same percentage compositions, but different molecular weight, they are *polymerides*.

*Polymorphism* is used to denote that the same substance exists under two or more forms. Thus the element phosphorus may exist as a yellow, waxy, poisonous, solid body, and also as a red non-poisonous powder. It is, therefore, dimorphous. Carbon exists as charcoal, graphite (or black lead), and diamond, so it is trimorphous. The word *allotrophy* is used in the same sense as signifying "another form," and in addition to the allotropic forms of carbon, we may mention those of gold, silver, and platinum as being of special interest to photographers in connection with the so-called "toning" processes.

*Tautomerism* is the name given to the phenomenon of a compound, which, while consisting of the same composition and molecular weight, yet shows a difference of reaction due possibly to difference of molecular arrangement. It is probable that there are two different sulphurous acids, and that our familiar friend, sodium sulphite, is derived from one, while silver sulphite represents the other.

*Analysis* is the name of any operation which breaks up a compound into its elements or more simple components.

*Synthesis* is the exact opposite operation of building up complex bodies from more simple substances. As in the case of oxidation and reduction analysis and synthesis go on side by side.

*Acids* constitute a class of chemical compounds very difficult to describe without the use of certain technical terms. They contain one or more atoms of hydrogen which can be replaced by a metal or a base, and so yield a salt. Thus, one atom of H and one of Cl form HCl, hydrochloric acid or chlorhydric acid. When the H atom is replaced by Ag (silver) we have AgCl, silver chloride. Other acids contain oxygen as well. These are termed *oxyacids*. Thus, we have $HNO_3$ or nitric acid, which with silver gives Ag $NO_3$ silver nitrate; $KNO_3$, potassium nitrate; and so on.

As the replaceable hydrogen atom (or atoms) in the acid molecule correspond to the metal atoms when salts are formed, it has been thought that hydrogen may be regarded as a metal and that acids are thus salts of hydrogen. We may thus call hydrochloric acid hydrogen chloride; and call nitric acid hydrogen nitrate; and so on. If an acid does not contain oxygen, *e. g.*, HCl, it is sometimes called a *hydracid*. Some acids (*e. g.*, $H_2SO_4$ sulphuric acid) contain more than one replaceable hydrogen atom in the acid molecule. If all the replaceable H atoms are replaced by a metal or base, we get a *normal salt*. Thus, $K_2SO_4$ is normal potassium sulphate, but if only part of the replaceable hydrogen is replaced we get an *acid salt*. Thus, $HKSO_4$ is variously called hydrogen potassium sulphate, acid potassium

sulphate, or bisulphate of potassium. Similarly, we have $H_2CO_3$, carbonic acid; $Na_2CO_3$, sodium carbonate; $HNaCO_3$, acid sodium carbonate, hydrogen sodium carbonate, or, more familiarly, bicarbonate of soda. Many acids have a sour taste (so-called pyrogallic acid is not really an acid in the chemical sense, but belongs to a class of substances collectively called phenols). They turn blue litmus paper red, and turmeric paper brown, solutions of methyl orange to pale yellow, etc. Hence litmus, turmeric, etc., are called *indicators*.

*Alkali* is the name given to denote the properties of certain bodies of an opposite character. Thus, an alkali turns red litmus blue, phenolphthaline solutions pink, etc. Alkaline characters were first recognized in the ashes of plants called *Kali*, hence the name. Their chief point of interest to the photographer is that they neutralize acids, so that a suitably balanced admixture of acid and alkali may be neither acid nor alkaline in reaction, but *neutral*.

We may regard water, $H_2O$, as an oxide of hydrogen. Several elements, *e. g.*, K, Na, etc., can replace one of the hydrogen atoms, and give a *hydroxide*, *e. g.*, KHO, potassium hydroxide, caustic potash; NaHO, sodium hydroxide, caustic soda; $NH_3HO$, ammonium hydroxide, etc. These are strongly alkaline.

*Hydrates* are formed when a base combines with water. We have a familiar instance when "quick" lime, CaO, calcium oxide, is "slacked" and combines with water, $CaOH_2O$, giving us slacked lime or calcium hydrate.

A *base* is a substance which combines with an acid and forms a salt. Various oxides of metals act in this way and are called *basic oxides*.

For example, silver oxide, $Ag_2O$, with nitric acid, $HNO_3$, forms silver nitrate, $AgNO_3$, and some water, $H_2O$, is also formed. A metal may also act as a base, and form a salt. Thus, silver and iodine combine, directly forming silver iodide. The term base is wider than and includes the term alkali, for all bases are not alkaline. When part of the replaceable hydrogen in an acid is replaced by one base and part by another base a *double salt* results. Thus, in chrome alum we have a sulphate of chromium and sulphate of aluminum combined. Common or potash alum is similarly a double sulphate of potassium and aluminum.

A *basic salt* is somewhat similar to a double salt, inasmuch as it consists partly of a normal salt and partly of an hydroxide of the same metal as the normal salt.

An *acidic oxide* is one which combines with water to form an acid. It is also, and preferably, called *anhydride*. Thus, phosphoric pentoxide or phosphoric anhydride, $P_2O_5$, is formed when phosphorus is burnt in dry air or oxygen. This readily combines with water forming phosphoric acid. $P_2O_5 + H_2O = 2PHO_3$.

The *freezing* and *melting points* are the temperatures at which a body changes from liquid to solid or *vice versa*. The boiling point is the temperature at which it changes from liquid to a gas. When a solid is dissolved in a liquid the solidifying temperature or freezing point is usually lower than that of the solvent by itself. But at sufficiently low temperatures most of the salts which are soluble in water form solid bodies in which water of constitution enters as it does in hydrated crytals. Common salt, for instance, mixed with ice does not solidify until the temperature is about 20° C. (or 36° below freezing on the F. scale), and then one molecule of the sodium chloride crystallizes with ten molecules of water. Such hydrated crystals that melt below the freezing point of water are called *cryo-hydrates*.

An *alloy* is a mixture of two or more metals. Thus, brass is an alloy of copper and zinc, and bronze an alloy of copper

and tin. Our silver coinage is alloyed with about $\frac{1}{18}$ its weight of copper.

An *amalgam* is an alloy of mercury with some other metal.

*Halogen.* A term applied to each of the four elements, chlorine, bromine, iodine, fluorine, in consequence of their powers of forming salts (Gk Hals. salt) by direct combination with metals. These salts are called halides or haloid salts, *e. g.*, silver bromide, etc.

A *metal* may be defined as an element which combines with oxygen and forms a base.

*Names of Chemical Compounds.* When two elements combine the compound takes the termination *ide*, *e. g.*, silver bromide (bromine), iron oxide (oxygen), calcium carbide (carbon), etc.

If hydrogen combines with another element to form an acid it is prefixed by *hydro*, *e. g.*, hydrochloric acid, hydrofluoric acid. The salts from these acids take the simple termination *ide*, *e. g.*, calcium fluoride, sodium chloride, etc.

The first-discovered or best-known acid of any group of acids took the termination *ic*, *e. g.*, nitric, sulphuric, chloric acids, and the salts of these acids end in *ate*, *e. g.*, nitrate, sulphate, chlorate, etc.

The acid whose molecule contains one atom of oxygen less than the *ic* acid terminates in *ous*, *e. g.*, nitrous, sulphurous, chlorous acids, and their corresponding salts end in *ite*. Thus, nitrite, sulphite, chlorite. The acid whose molecule contains one less atom than the *ous* acid has the prefix *hypo*, *e. g.*, hyposulphurous, hypochlorous, etc., and the corresponding salts are hyposulphite, hypochlorite, etc. The acid which contains in the molecule one more atom of oxygen than the *ic* acid are prefixed by *per*, *e. g.*, persulphuric, perchloric, etc., and the corresponding salts are persulphates, perchlorates, etc.

When two substances, such as mercury and chlorine combine, we get chloride of mercury or mercury chloride. But it so happens in this case that we get these two elements combining in two different proportions, one of which contains just double as much chlorine as the other; thus, we write the molecules HgCl and $HgCl_2$. The first may be called mercury *proto-* or *sub*-chloride and the other mercury *bi-* or *per*-chloride. But the more modern and better plan is to vary the ending of the metal mercury to mercur*ous* for the compound containing the greater proportion of mercury, viz., the subchloride HgCl, and call it mercurous chloride. In the other case, the metal termination is changed to *ic*, viz., the perchloride $HgCl_2$, and called mercuric chloride. Similarly, with other metals which form corresponding pairs of salts, we give the *ic* termination to that having the lesser proportion of metals, *ous* to that having the greater. Thus, $Cu_2O$, cuprous oxide; CuO, cupric oxide; $FeSO_4$, ferrous sulphate; $FeCl_2$, ferrous chloride; $Fe_2(SO_4)_3$, ferric sulphate; $Fe_2Cl_6$, ferric chloride.

If one of the hydrogen atoms in water, HOH or $H_2O$, be replaced by a metal, such as sodium, potassium, etc., we get an *hydroxide*, NaHO, KHO, etc., which we are familiar with under the names of caustic soda and caustic potash. If in place of the metal we use a group of atoms having *twice as many atoms plus one* of hydrogen as there are carbon, we get a long series of bodies collectively known as *alcohols*, *e. g.*, $CH_3.HO$ (methyl aclohol), wood spirit; $C_2H_5HO$ (ethyl alcohol), spirits of wine; $C_3H_7.HO$ (propyl alcohol), etc.

If we start with a substance called benzene, having the molecular formula $C_6H_6$, and replace one of the hydrogen atoms by the group OH, hydroxyl (which we have seen combines with metals in the hydroxides and is so important in the alcohols), we get a substance, $C_6H_5OH$, called phenol or carbolic acid. If three of the H atoms

in benzene be replaced by three hydroxyl groups, we get tri-hydroxyl-benzene, or pyrogallol, or, more familiarly, pyrogallic acid. Several of the developers, such as amidol, metol, adurol, quinol (Hydrokinone), are derived from the benzene ring, as it is called, and their relationship is suggested by their termination *ol*—an ending which suggests their possible relation to the alcoh*ol* series, as they may be regarded from a certain point of view. But pursuit of this subject would lead the beginner into undesirably controversial questions.—R. C. B. in *The Practical Photographer.*

## METHODS AND FORMULÆ.

*Increasing the Sensitiveness for Chromated Gelatine.* Those who work the "carbon" process or other comparable methods would do well to bear in mind a suggestion by Dr. R. Liesegang, which shows a way of incorporating a larger proportion of potassium bichromate with the gelatine than would otherwise be practicable, the ordinary limit being the amount of the sensitizing salt that the gelatine will carry without crystallization taking place. If a small proportion of gelatose, or gelatine degenrated by boiling, is incorporated with the mixture, crystallization is hindered, and a higher degree of sensitiveness may be realized. The gelatose is obtained by dissolving gelatine in four or five times its weight of hot water, and maintaining the solution at a temperature near to the boiling point of water for some days.

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*Concentrated Metol-hydrokinone Single Solution Developer.* The following chemicals are dissolved in 33 ounces of water in the order given, taking care that each is dissolved before the next is added. The water may be warmed to facilitate solution.

| | |
|---|---|
| Sodium sulphite crystals | 5 ounces. |
| Metol | 75 grains. |
| Hydrokinone | 150 grains. |
| Potassium carbonate | 3 ounces. |
| Potassium bromide | 15 grains. |

For developing plates, one part of this developer and three or four parts of water are taken; for gaslight papers one part of developer to two of water.

*Two-solution Metol-hydrokinone Developer.*

*A.*

| | |
|---|---|
| Water | 1 quart. |
| Sodium sulphite crystals | 6 ounces. |
| Hydrokinone | 3 drams. |
| Metol | 95 grains. |

*B.*

| | |
|---|---|
| Water | 1 quart. |
| Potassium carbonate | 4 ounces. |

For plates, one part of *A*, one part of *B*, and six parts of water are taken. For gaslight papers, the developer is made up by taking one part of *A*, one part of *B*, and two parts of water, sufficient potassium bromide being added to keep the whites clear.

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*A Cracked Negative.* The mark which shows on the print when the negative is cracked and printed without any precaution is caused by the light stopped by the vertical edge of the broken glass, which thus casts a shadow on one side or the other. If the printing frame is kept rotating slowly all the time printing is going on, this shadow will no longer fall in one place on the print, but will be distributed and no longer be noticeable. A convenient way of rotating the printing frame when it is not a large one is to place it on the table of a gramophone.

*Stains on Bromides.* We have many inquiries as to why yellow stains appear on bromide prints, sometimes the staining appearing in patches, and at others the whole surface takes on a brownish-yellow look, though the best of chemicals—it is averred—have been used, and the instructions accompanying the paper have been followed out to the letter. It is somewhat a usual thing for the editor to receive a query of this sort, accompanied by the print or batch, all more or less stained, and it is also a usual thing that only the most meagre information is given as to the manipulation used in the production of the said prints; this often unconsciously on the part of the sender. It would be much better to give the fullest details, even to the most trivial, when sending prints or negatives for advice, when the trouble could be more readily and surely located, and better advice, therefore, given. In the case of stained bromides we find the most frequent cause of such is that the prints have not been well washed between developing and fixing. It is always best to wash off the developer well before fixing, and where the trouble is constant—owing perhaps to impure water, which is a usual thing in many districts—then an acid fixing bath helps considerably the attaining of nice clean prints.

*Copying a Faded Print.* F. G. P., in the *Amateur Photographer*, gives a means of copying a print which had faded to a sickly yellow color, and which proved very satisfactory; a brief note as to the method may be of value to others.

A piece of blue glass was obtained from a glazier; it was of the palest tint made, a sort of Cambridge blue diluted 50 per cent., and the yellow print was squeegeed in optical contact with it; after being thoroughly dried the glass was set up in such a position that all reflections were avoided, a tissue paper screen being required in one direction.

The plate used was an isochromatic, of well-known make, and a full exposure was given with a small stop.

On developing in pyrosoda, it was found that the blue glass had emphasized the details of the yellow print and had rendered them far more distinct; thus, the copy was a great improvement on the original, and instead of appearing dead and flat, as so many ordinary copies of photographs do, this one was quite brisk.

A hint like this is of the utmost value where a photographer is called upon to copy an old and very much faded picture, which may be the only one in existence, of some deceased friend or relative.

*To get rid of the marks* caused by drying a negative unevenly, the *Photo-Revue* advocates intensifying the thinner portions locally. The mercuric chloride solution, which should not have a strength of more than two or three per cent., is applied with a brush, only a very slight superficial bleaching being necessary. After thorough washing, the negative is then placed in an old metol-hydrokinone developer slightly diluted, until the film is blackened again, and is then washed and dried.

*Waterproof Varnish.* Clean off the gelatine coating from a spoiled celluloid film by the aid of hot water and a nail brush. Dry the film and then cut it up into fine shreds. Place these in a bottle and cover with amylacetate or acetone. The celluloid after a little time and an occasional shaking will dissolve. This solution may be diluted, if required, with wood alcohol.

*When enlarging* from dense hard negatives with strong contrast give a full exposure and use a dilute developer without bromide.

By F. Milton Somers, Cincinnati, Ohio

By F. Milton Somers, Cincinnati, Ohio

By F. Milton Somers, Cincinnati, Ohio

By F. Milton Somers, Cincinnati, Ohio

By F. Milton Somers, Cincinnati, Ohio

1. Pope Leo XIII
2. Theodor Mommsen
3. Bismarck
4. Ignace Dollinger

*Illustrating Sidney Allan's Article*

5. Franz Liszt
6. Study
7. Miss Peck
8. Self Portrait

*Illustrating Sidney Allan's Article*

9. Johann Strauss
10. Prince Regent Luitpold of Bavaria
11. King Ludwig I of Bavaria
12. Portrait

*Illustrating Sidney Allan's Article*

# MASTERS IN PORTRAITURE—FRANZ VON LENBACH.

BY SIDNEY ALLAN.

LENBACH occupies a unique position among modern painters. He is one of the few who devoted himself exclusively to portraiture, and he won more renown in this special domain of art than almost any other artist of his time. This was due to the surprizingly large number of interesting personalities that flocked to his Munich studio as much as to his superior skill as a painter and interpreter of facial individuality. If there was ever a portraitist who deserved the title of a painter of celebrities, it was Lenbach. He painted almost everybody of real prominence in Germany and Austria during the seventies, eighties, and nineties. His various Bismarck portraits became known wherever the slightest interest in art is shown. Also England and Italy contributed liberally to his circle of illustrious personages. It is only necessary to mention Gladstone, the Queen of Italy, and the world-famous portrait of Pope Leo XIII.

As a technician Lenbach ranks very highly. In his youth he made many copies of the Old Masters, and he developed his brushwork and invented a broad, convincing method of his own by an incessant study of Titian, Van Dyck, Franz Hals, and Rubens, who were his particular favorites. But also the influence of Dürer and Holbein is palpable. The Germans were always good draughtsmen, and Lenbach was no exception. His Theodor Mommsen (Fig. 2), that attracted so much attention during the German Art Exhibition at the Metropolitan Museum last spring, is the best proof of his efficiency in that line. His drawing is peculiarly sensitive to the plastic modulation of features. He accentuates the leading characteristic of a face by strong, decided lines, and then models its smaller planes, the peculiarities of physiognomy, with such minute accuracy and yet with such apparent ease and straightforward treatment that the result is almost invariably an impression of lifelike virility.

He is said to have made photographic studies of each sitter. This was done for various reasons: principally, as a matter of convenience, as many of his distinguished patrons could not afford to give as many sittings as the painter would like to have commanded; besides, Lenbach argued that every means conducive to the production of a work of merit should be freely employed, without any scruple, as it is not the process but the final result by which the esthetic value of a painting is judged. Lenbach used photography to familiarize himself with the peculiarities of a face and to establish the most favorable viewpoint.

In composition, in the placing of the subject in space, Lenbach was frequently deficient or rather careless. Accessories did not mean much to him. His whole interest was centred upon the face, its construction and most typical expression. In his prime he refused to paint people whose faces did not interest him. He only cared for types of distinct character or beauty, unlike any others, and in the delineation of their faces he endeavored to fathom not merely the intricacies of their physiognomy, but their bent of character, their innermost individuality, and what the latter meant to the world. His ideal was to write history by the depiction of countenances. And nobody who looks at his gallery of royalties, famous statesmen, scientists,

artists, composers, authors, and beautiful women will hesitate to agree with me that his portraits impress like commentaries on contemporary civilization.

I do not know whether such a high aim can be pursued by the portrait photographer, unless he would limit his clientele as Lenbach has done. Be this as it may, there is not the slightest doubt that one can learn from Lenbach—perhaps better than from any one else—the possibilities and limitations of portraiture.

Portraiture is preëminently the representation of a *face;* everything else is secondary, even the most vivid delineation of hands or the rest of the body. Such was Lenbach's conception. He sacrificed everything to facial description.

Look how carelessly the hands are treated in most of his pictures. In his Pope Leo XIII (Fig. 1) they are merely sketched in. The art critics at the time all found fault with it, also with the superficial handling of the chair, the curtain, and the entire lower part of the picture. But this was not carelessness; on the contrary, it was calculation. He wanted the beholder to be interested in nothing but the face of one of the greatest diplomats of the nineteenth century, with its shrewd, world-wise expression and the keen, penetrating glance of the eyes.

Lenbach, if he could have had his own way, I believe, would have liked best of all to paint nothing but the face, as in Fig. 2, and to suggest the rest merely by a few sketchy lines, or by some paint rubbed in thinly and apparently carelessly, just sufficient to produce a tone. Can anything simpler be imagined than his Liszt? Bust, hair, and background have been subordinated to the sardonic profile in a fashion that would seem unpardonable if done by any other artist; but who for a moment could underrate the directness and simplicity of the result?

In looking at the portraits of Lenbach, as, for instance, his Ignaz Dollinger (Fig. 4), we learn to appreciate that it is not always necessary to be acquainted with the original of a portrait to be impressed with the absolute fidelity of representation. Does not every line in the careworn features of this most peculiar-looking man (a theologist and a great fighter in his time) bear testimony that the painter has caught the very essence of his character? Such a likeness seems to be alive. It speaks for itself. Its sincerity is unmistakable. In this instance the attitude of the body has a good deal to do with the total effect. Lenbach found it interesting enough to accentuate it. Whenever this impulse was lacking he simply left it out.

He had a dislike for the costume of modern times. He considered it unpictorial and avoided it whenever he could. This is particularly noticeable in his women portraits. The majority of them are done in pastel, and only depict the grace and general air of the countenance. The leading lines of the eye, nose, and particularly the mouth are often slightly exaggerated; but the remainder, even the hair, is treated in a sketchy manner and often merely indicated. Figs. 7 and 12, however, show that he was also a master in finished feminine portraits. The portrait of "Miss Peck" is an excellent triangular composition, beautifully lighted and harmonious in tone. The "Portrait" (Fig. 12) is noteworthy for the simplicity of handling and dignity of pose. How the face shines out, and how skilfully the dark figure has been brought into relief by the ribbon in the hair and the light planes of the lace collar and the gracefully drooping hands! He could paint hands if he wanted to, but generally preferred to neglect them, as they too easily attract more attention than is due to them.

The hand in his "Bismarck" (Fig. 3),

one of the less popular but more intimate versions, showing rather the man at home than the famous statesman, is connected with the face by the newspaper. Without the paper it would be obtrusive; as it is, it furnishes an interesting spot. The background is interesting, as it shows how the dark mass of a body can be lost in a tint that is only a trifle lighter.

The scroll of music in the background of Fig. 9 is in very bad taste. Also the pose is awkward and not particularly convincing. As usual, the face saves the rest of the picture. But who would have thought that the waltz king, Johann Strauss, to whom we owe so many of our most beautiful melodies, had such a haunting expression in his face—of a fanatic, as it were? We must believe Lenbach, who leaves no question as to his honesty in setting down facts. To him the human note, the discovery of the character and disposition of his sitter, was the supreme aim and object of his art, and we can hardly persuade ourselves that he failed in this instance.

In his "Self Portrait" we see the penetrating glance of a man that can discern character, as it were, at first sight. It may not be even in this case an exact similitude of features, but rather a general impression of himself, of an artist who endeavors to make out of his portraits "human documents." There is no fault to be found with this picture. It is so simple and convincing.

The same can be said of his King Ludwig I and Prince Regent Luitpold. How wonderfully plastic and lifelike these figures and faces are! And how the light plays on the features! Lenbach's lighting is always simple, but of considerable variety. He rarely made use of toplight, but preferred sidelight, and generally placed his sitters far away from the window, relying upon some accidental light, as occurs in the homes of people, for inspiration.

Besides, these two pictures own the merit of having a finished look. After all, I must confess that I really prefer portraits like Figs. 8, 10, 11, and 12 to erratic accomplishments, no matter how skilfully handled, such as are represented by Figs. 2 and 5, or even 1 and 3. The truest art never goes to extremes. Either show solely the head isolated, all by itself, as in Fig. 6, or show the surroundings and accessories and the attitude of the body (subordinated, of course), at least with some resemblance to form and some harmony of finish.

Nevertheless, fundamentally, Lenbach is right. Portraiture should concentrate itself upon the face, and qualities of mind, as facial expression, in the minutiæ of personality should be, at all times and with all subjects, considered superior to the soulless reproduction of stuffs, furniture, and sartorial decorations.

## USEFUL WORK-ROOM TABLES.

[In arranging and equipping their model studio, the Eastman Kodak Company endeavored to install only such fixtures as would prove thoroughly practical and convenient and a help in the economy of time and labor. Below we reprint from the September *Studio Light and the Aristo Eagle* a description of the workroom tables, with cuts kindly loaned us by the Eastman Kodak Company—Ed. W. P. M.]

The three tables, or work benches, described in this article have thoroughly demonstrated their practical efficiency in three years' constant use, and we have found no necessity for any modifications from the original plans.

It will be noticed that none of the shelving or cupboarding extends entirely to the floor—the free space allowing the floor underneath the benches to be easily swept, and also acts as a protection to the contents of the benches from dampness.

The table in the printing room—see illustration No. 1—is placed against the side wall of the room, just out of range from the light from the printing window. The top is provided with back and end pieces about twelve inches high. The back forms a handy support for the negatives when sorting for printing, and also prevents any of the negatives from slipping down behind the table and becoming lost or damaged.

We call your attention to the fact that all printing frames are stored in the lower part of the bench, either in the open shelves at each end or in the enclosed cupboards. This method is far better than sorting the frames on shelves above the table, as, when stacked above the table, they sometimes come tumbling down with disastrous results to important negatives. The table is provided with three snugly fitting drawers, equipped with pull handles, for the storage of sensitive paper. In the cupboards beneath ample space is provided for the storage of vignettes, tissues, and other printing necessities.

The table in the mounting room is of solid construction and is provided with a broad, perfectly smooth top, which may be covered with white rubber or oilcloth to insure its surface being always clean, and mounts and prints from damage by soiling.

The long shelves for the storage of thin mountboard will be found a great convenience, as the thin stock will remain in perfect condition, and no time need be lost sorting the sheets to locate different colors or weights. The other open shelves may be used for storing dry mounting tissue or paste, and other incidentals for mounting, while the shelving protected by the sliding doors forms an ideal storage place for stock mounts.

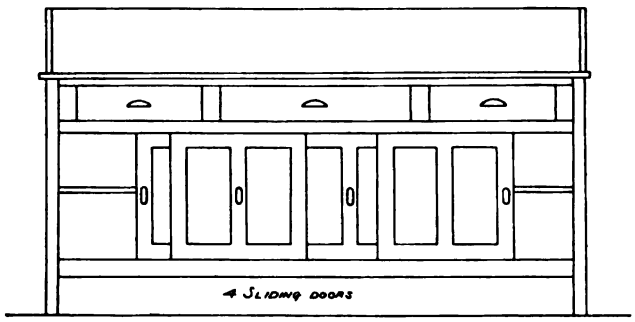


Fig. 1. Printing Room Table.

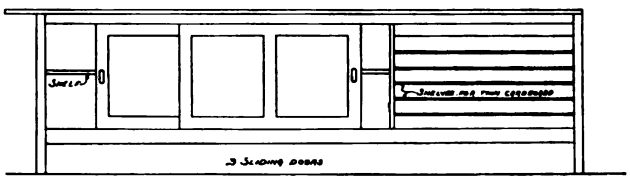


Fig. 2. Mounting Room Table

The table in the enlarging room presents some unusual features, which, though simple, greatly facilitate the work when enlarging in large sizes.

By referring to illustration No. 3, it will be noticed that the top of this table is constructed in the same manner as the table in the printing room, and for the same reasons. This table is fitted with six drawers for the storage of paper and other incidentals, four of the drawers are of the ordinary type, but the two upper right-hand ones are designed for the storage of bromide paper in large sizes and are of special construction.

Illustration No. 4 affords a profile view of one of these drawers when pulled out. It will be seen that the drawer is provided with a heavy board cover, which slides up and down on wooden pins, and serves as a weight to keep the paper flat during storage. This cover is provided with a brass flush ring, so that it may be easily lifted up to a vertical position when it is necessary to remove paper for use.

The front of the drawer pulls down, and is supported by a brass desk slide, making the large sizes of paper stored on the bottom of the drawer easy of access, and permitting the removal of any size sheet without disturbing the remainder. The paper may be stored in this manner in its original enclosures, the size, surface, and grade may be written in the edge extending, thus making it easy to locate and remove any size or grade instantly.

The plans reproduced herewith are reduced from the original scale of three inches to the foot; but they, of course, can be constructed in dimensions to accommodate any space.

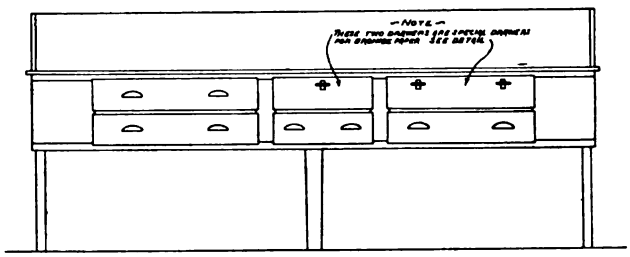

Fig. 3. Enlarging Room Table.

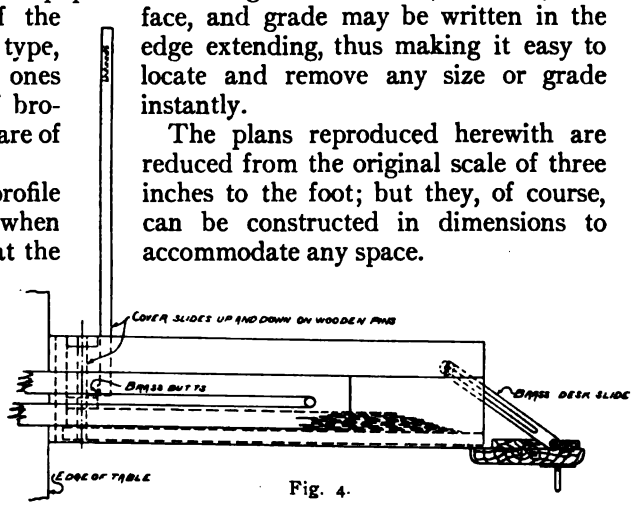


Fig. 4.

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*To Prevent Metal Parts of Camera and Tripod Rusting.* Clean thoroughly, and then rub well with vaseline, leaving just enough vaseline on the metal to give a slightly sticky or tacky feeling.

*To Ease Sliding Wooden Parts.* First clean the parts free of all dust and dirt, using a small *stiff* stencil brush. Then polish with a soft black leadpencil; finally polish with a flat agate burnisher.

# HINTS ON COPYING.

BY EDWIN J. GENTRY.

### *The Apparatus.*

For copying photographs or pictures, the requirements, beyond a camera and lens, are a long board or table and an upright board or easel. The easel should be of such a size as to take the largest picture to be copied, and should have, with advantage, a horizontal and vertical movement for quickly centring the picture. A plain board will do, fixing the picture with drawing pins, but an adjustable holder is far more convenient.

For the base, on which the easel moves backward and forward, a board is better than a table, as permanent fixtures can be attached to it, and it can be moved about more conveniently, to get the best lighting. On one end of this board the camera is to be attached, which must be blocked up so as to bring the lens in a line with the centre of the easel. If the camera has a hole for a tripod screw, it is better to nail two blocks of wood across the board, and on top of these blocks nail a piece of wood about half an inch thick, drilling a hole through the centre for the tripod screw. On the other hand, if the camera is fitted with a turntable, a block of wood must be fitted to the board, of a similar size to the base of the camera. Round this block of wood nail some thin strips of wood, and let them project above the block sufficiently to hold the camera in position, but not so much as to interfere with the extension frame in focusssing.

The easel should be fitted with runners so as to slide easily and accurately along the board, and should be held perfectly at right angles to the board in all directions.

To use the copying stand, the picture is placed centrally on the easel, upside down, the easel being moved backward and forward, and the camera racked in and out, until the picture seen on the focussing screen of the camera is the correct size and in sharp focus. All that then remains is to place the dark slide in the camera, expose, and develop the plate.

The best camera to use for copying with is one that racks out at the back for focussing; but, of course, the ordinary front-extension camera will give equally good results, with slightly more trouble. The best lens to use is the ordinary rapid rectilinear.

### *The Plate.*

Generally use a slow plate; the slower the better. An extremely slow plate, with a suitable exposure, will give a much pluckier negative, and consequently a better print, than a rapid plate. A slow plate has also the great advantage of a fine grain, which is necessary in copying. Further, a slow plate gives a much greater latitude in exposure than a rapid plate. Use a normal developer, and if the exposure is incorrect, expose another plate, and so insure getting the best results.

Regarding the use of a slow plate, there are perhaps a few exceptions. Usually the photographer has to copy old and faded photographs, line drawings, and subjects requiring increased rather than reduced contrast, for which use the slow plate. In some few cases he may have to copy a very plucky print, or one from an underexposed negative having too much contrast. In these cases it is advisable to use a fairly rapid plate, giving ample exposure, and so reduce the contrast.

### *The Simple Lens-calculation.*

In fixing the copying arrangement some time can be saved by calculating the distances required, of which there are two, namely, the distance between

the picture and the lens, and the distance between the plate and the lens. Two things are required for this: First, the focus of the lens; and secondly, the number of times the picture is to be reduced. To find the number of times of reduction, divide the length of the negative into the length of the picture to be copied. Suppose that we are copying a cabinet photo, and want to get a carte-de-visite negative, using a $5\frac{1}{2}$-inch focus lens. Taking the length of the photo as 5, and the length of the negative as $3\frac{1}{2}$ inches, we divide 5 by $3\frac{1}{2}$, which gives us $1\frac{3}{7}$ as the number of times of reduction. To find the distance required between the lens and the picture we take the number of times of reduction, add to it 1, and multiply the result by the focus of thc lens. Taking the result which we have obtained, $1\frac{3}{7}$, we add to it 1, which equals $2\frac{3}{7}$; multiplying this by $5\frac{1}{2}$ inches (focus of the lens), we get the first distance required, $13\frac{5}{14}$ inches, or $13\frac{1}{2}$ inches approximately, in this case. To find the distance between the negative and the lens we simply take the first distance obtained and divide it by the number of times of reduction, which in this case is $13\frac{1}{2}$ inches divided by $1\frac{3}{7}$, and equals $9\frac{1}{2}$ inches. In making an enlarged negative simply reverse the distances. If the negative is to be of a similar size to the picture copied, no calculation is necessary, as the distance in each case will be twice the length of focus of the lens used.

From the foregoing facts it will be noticed that in nearly all cases the focus of the lens will be considerably lengthened. In fact, in copying the same size the focus of the lens will be just doubled. This fact shows that it is necessary to study carefully the degree of reduction, and how it affects the focus of the lens, as this makes a very wide difference in the exposure. The apertures marked on the lens are of little use as guides to exposure, unless a little calculation is entered into. For instance, in copying the same size, the stop marked $f/8$ becomes $f/16$, as the focus of the lens is doubled, and, therefore, the lens is four times as slow.

### *A Point on Portrait Exposures.*

It is worth mentioning here that in taking portraits this fact is often lost sight of. In taking a bust, when the sitter is necessarily near the lens, the increased racking out of the camera and consequent lengthening of the focus of the lens reduces the effective aperture of the lens considerably. This fact accounts for many an underexposed portrait.

### *Exposure in Copying.*

Several things affect the exposure in copying, in addition to the intensity of the lens. The color of the photo or picture (I do not refer to painted pictures, but those in one uniform color, or toned prints) affects the exposure very much. In copying an old yellowish print the exposure would probably be at least twice as much as in copying a picture on white paper, under the same conditions. In the first case all the light reflected through the lens from the picture would be yellow, and in the second case would be practically pure white light.

The quality of the light must also be taken into consideration, and also the quality of the negative desired. It will be seen from these remarks that it is necessary to take into consideration the following points in judging the amount of exposure required:

1. The actinic value of the light, which is probably best judged with the aid of an actinometer.
2. The amount of reduction, and how it affects the working aperture of the lens.
3. The color and quality of the picture to be copied.
4. The quality of the negative desired, plucky or full of detail.

*The Light for Copying.*

It is an open question which is the better procedure, copying in an ordinary room or outdoors. The same apparatus may be used in either case. Outdoor lighting, with the picture facing the north, is certainly the ideal light, especially for pictures having a coarse grain, as the all-round lighting reduces the grain showing. Indoor lighting, with the picture facing a window, is suitable for all but extreme cases, and one has the great advantage of being independent of any wind that may be blowing. The exposure may be a little longer indoors, but this is more than counterbalanced by the fact that there is practically no danger of the apparatus moving or shaking during the long exposure. This fact, and the extra comfort of working in a room, tends to give more certain results.

*Copying Old Prints.*

Occasionally one gets an old cracked print to copy, and, of course, the owner wants a first-class copy from it. The cracks may be got rid of by the following procedure: If the print is mounted, soak it in water until it leaves the mount, then carefully dry it between blotting paper. Now put a few drops of glycerine on the print and rub carefully in with the finger. Next take the print and squeegee it face down on to a clean piece of glass. Over the back of the print squeegee a piece of white paper. If this is carefully done, and the print copied through the glass, none of the cracks should show.

*Paintings.*

Copying painted pictures without using isochromatic plates and a color screen is really a waste of time. If the picture contains much red, a plate sensitized for that color must be used. In all cases a yellow screen is necessary, and oil paintings are best copied in sunlight.

*Line Originals.*

In copying line drawings give an ample exposure, without overexposing. Use a strong developer, and on the slightest sign of any deposit in the clear lines, immediately immerse the negative in an acid fixing bath. It is always well to use an acid fixing bath for negatives of line drawings.

*A Figure from a Group.*

It sometimes happens that a single figure, or a bust, has to be copied from a photograph of a group. The best way to do this is to wet the print and squeegee it face down on to a clean piece of glass. The part not wanted can then be blocked out on the glass. In blocking out use a piece of paper, or paint, of a decided tint, cream or dark gray, so that the figure will not appear on a perfectly white ground when copied. The advantage in this style of blocking out is that the figure will not appear to be stuck on the print, but the edges will be softened into the background.

*Remedying Distortion.*

Sometimes a photograph has to be copied which is distorted, say a view of a high building, in taking which the operator forgot to use the swing-back, and consequently the lines of the building are not parallel. It is quite possible to rectify this with a careful use of the swing-back on the camera used for copying. The back of the camera must be swung over until the lines, as seen on the focussing screen, are parallel. A little stopping down of the lens after focussing is advisable, to get an increased depth of focus, and so bring the picture to an equal sharpness all over. Many views of buildings, etc., taken at holiday times with hand cameras suffer from this distortion, and if the photographer copy them as above, the results will well repay him for the trouble.—*Photographic Monthly.*

## HINTS ON ANIMAL PHOTOGRAPHY.

In manufacturing plants, where much costly machinery is installed, it is the constant effort on the part of the management to keep each piece of machinery running at its fullest capacity. Many photographers, however, with a well-equipped studio and workrooms, are content to sit around during a dull season and wait for some sitter to come in. An interesting and profitable branch of photography is to be found in the picturing of domestic animals. They are good for popular sales in the art stores, advertising purposes, and post-card subjects. The following jottings on animal "sitters" may prove helpful to the beginner:

*Cats.* Never attempt to pose two strange cats in the same picture. For they will either stare at each other from a respectful distance, or start fighting. Cats can often be led into position by a few feathers at the end of a string; or a saucer just moistened with milk may serve to catch their attention for a moment, and when this is taken away their eyes will generally follow the direction of its movement.

*Kittens and small dogs* are often intensely interested in seeing any strange thing, but perhaps the thing which interests them most of all is their own presentment as seen in a hand mirror. Of course they take this for some other cat or dog, and for a second or two this produces an expression of attention or surprise. If the mirror is in one hand and the shutter bulb in the other, a favorable expression and pose may be secured. A kitten's attention may sometimes be held for a moment by slowly moving the mirror up and down.

A bone or bit of gristly meat at the end of a string is a useful aid in tempting a cat to walk into a selected position. A cat cannot be driven, but may with much patience—sometimes—be led.

*Sheep in the Field, or on the Hillside.* A very slight knowledge of the "ways" of sheep tells us that they are timid things, with good hearing and eyesight. As a good shepherd knows his sheep one from another, so do they soon know him; and should a stranger take his place the substitution will be noted. As soon as alarmed by the approach of a dog or stranger the sheep will run together and combine forces. If the stranger-photographer now approaches they will stampede, and his chances are over for the present. But if he keeps quiet for awhile, and then very slowly and quietly approaches, their alarm will subside, and they will resume their nibbling, gradually separating again and offering him a series of groupings. Sheep cannot be posed or grouped by driving. One has to wander after them quietly and patiently.

*Horses at work* are nearly always desirable objects for pictorial purposes; for instance, when ploughing, hauling timber, etc. And as in such scenes we practically always include human beings, the picture may and should possess something of that indescribable charm which human occupations bring with them. One of our greatest art critics has extolled the dignity of human labor. Something of the same kind belongs to animals at work, and a study of the philosophy of the subject will show us that a good deal of this charm is due to unconsciousness on the part of the animals and figures. Indeed, not a little of the attraction of animals as "sitters" is due to their unconsciousness. If we contrast the conscious and unconscious

laboring man we may at once see how great is this factor.

*Birds.* Here is a useful tip for inducing birds to visit a certain place during their nesting season. If some of the material which they use for the making of their nests is lightly attached (with thread) to the branches it is desired they should visit, the chances are their sharp eyes will ere long discover the store of desirable material. This device of course presupposes some knowledge of the building materials favored by each species.

*Birds* are proverbially shy, but hunger will go a long way in the direction of overcoming this shyness. If food be scattered at a certain spot the birds will find it, and will look for it again in the same place. The first day or two no attempt should be made to visit the spot but after awhile the cameraist may quietly approach nearer each day until he is permitted to get within shutter range.

*Aquatic birds* may in the same way be fed by constructing a raft of a few bits of wood and floating the food to the required place.

*Seagulls* are voracious feeders and not particularly timid. A few bits of herring may be tied with cotton to a light raft of sticks or the lid of an old hamper and towed out to the place where the birds are wanted.

*Birds' Nests.* How seldom, indeed, does one see a bird's nest in photography which really looks like or suggests the real thing in nature. Surely it is a profound mistake to "pluck" a nest from a tree, place it on a neat little table and back it up with a vase of flowers, and call it "A Study." A bird's nest removed from its natural surroundings, *i. e.*, the place where the bird put it, loses half its charm and interest.

Another and almost as serious mistake is that of *cutting* away all twigs and leaves, so that what in nature is cunningly half concealed is laid blatantly open. Surely it would be far more natural and pictorial to partly display the nest by bending aside a few of the twigs, and not cutting them.

*Spiders' webs*, though not animals any more than birds' nests are birds, yet may consistently be included under the head of natural history work with the camera. They make very beautiful objects for the camera. Three matters of importance should be noted. First, a suitable direction of lighting is necessary to bring out the various strands of the web. Next, a suitable background is essential. This should be as dark as possible, and sufficiently far beyond the web to be out of focus. A piece of black cloth will be found very useful in this connection. If nothing of this kind be at hand, sometimes one can cut away all leaves, etc., from near behind the web. Lastly, it may be necessary to shelter the web from wind, which causes undesirable vibrations and prevents a sharp image being obtained.

*The Camera.* The less conspicuous the camera (and cameraist) the better. Avoid bright, shiny metal fittings, which reflect light and attract the attention of the object. *The focussing cloth* is often made of black material with brilliant red lining. Perhaps this latter is the most likely of all to attract the attention of animals. (The effect of the red rag on the valiant bull is proverbial.) The best focussing cloth for our purpose is a large piece of old and well-worn green baize.

*Shelters.* Some good work has been done with a large piece of thin green baize, large enough to cover camera, man and tripod. To the outside is fatsened a few leaves and trailers. The cameraist with tripod erected can then *slowly* move up to his quarry.

*Familiarity with the camera* is often one of the conditions of success in animal work. One should be able to put one's finger on the focussing screw, shutter

setter, or trigger, etc., with one's eyes shut, nay, without so much as an effort of mind. Again, it is of equal importance that a certain method of procedure should be thought out and followed again and again, until it becomes automatic. One ought not to have to be asking one's self, "Did I set the shutter? change the plate?" etc. Immediately an exposure has been made, preparation should *at once* be made for the next. Of course, the second exposure may require alteration of the focussing scale, shutter speed, etc., but these readjustments are additional links in the chain; and the fewer there are to bear in mind the better can one's attention be given to watching one's subject.

*The Pneumatic Trigger.* When the camera is set in position, focus adjusted, plate ready for exposure, etc., and the camera covered up with branches, the operator may retire to a convenient distance, where he can with binocular or telescope keep watch on the nest and wait for the hoped-for visit of the bird. We are presuming that the shutter is of the bulb-and-tube-release order. Various short lengths of rubber tube may be connected up by inserting into the tube ends a bit of brass or glass tube about three inches in length. These connections should fit the rubber tube fairly tightly. With a long tube a bulb somewhat larger than usual is required. That sold for sprinkling plants—about the size and shape of a *large* pear—will serve very well. If fitted with a spray nozzle this must be cut away, and the tube filed down to fit inside the end of the rubber.

*Wind.* A word of caution as to the wind upsetting the camera may be given. To prevent this it may be guyed by means of three *strong* strings and tent pegs. Care must also be taken to see that a swaying branch may not get in the way at the moment of exposure. Here again string may come in useful.

*Domesticated animals*, such as the dog, cat, horse, sheep, pig, rabbit, cow, etc., are the best for the beginner to deal with. Those that usually move slowly, *e. g.*, cattle, sheep, horses, grazing in the paddock, can be followed up from point to point until a suitable position and direction of light be secured.

*Three requirements* for a good animal photographer are: (1) *Observation*, enabling the worker to recognize the desirable characteristics of the specimen, *i. e.*, position, form and markings, lighting, etc.; (2) *patience* until a satisfactory combination of desirable features is presented to the lens; and (3) *perseverance* in spite of a certain—or rather uncertain—number of failures preceding the securing of an entirely successful negative. Of course, rapid plates and a good lens are valuable aids, but they are not so essential as patience and perseverance.

*The Two Methods.* These have been called (1) Stalking—*i. e.*, bringing the camera to the animal amid its natural surroundings. (2) Control—*i. e.*, bringing the animal to the camera, *i. e.*, in a cage, studio, or some other place. (1) This has the advantage of natural surroundings, etc., but is not suitable for small or nocturnal animals. (2) This method enables the operator to make studies of small specimens with ease, but is not so likely to exhibit natural movements or surroundings. Obviously neither method is complete in itself. The two are mutually supplementary to each other.

*Animal photography* may take several different forms. We may employ the camera to record the form, markings, movements of an animal, *i. e.*, to aid the study of comparative morphology. This may be done by capturing or caging the animal and bringing it to *the camera*. Again, we may take the camera *to the animal* in its natural habitat of wood or wilderness, hill or hedgerow. This

branch might be termed natural history photography. Or again, we may employ animals as parts of a pictorial composition, to give an interest to a certain portion of the scene, or otherwise help in the arranging of the picture. Or yet again, we may employ animals as the chief feature of a pictorial design, just as human figures are employed in genre or incident pictures.

## THE PHOTOGRAPHY OF COLORED OBJECTS.

THOUGH orthochromatic methods are very much employed by photographers generally, yet the principles that govern correct methods are little understood by practical workers. For example, we frequently hear reference made to yellow sensitive plates, though it is hardly too much to say that no such plates exist.

It is fairly well known, and certainly a fully proved fact, that all colors of nature can be reproduced by mixtures of three primary colors only—blue-violet, green, and red. These three together make white, while mixtures of them in due proportion make up all the other colors. It is also a fact that all the colors of nature can be dissected or analyzed by the aid of the spectroscope into these three colors, hence it is possible, by using plates sensitive to these colors in conjunction with filter screens that will each only pass one color, to record photographically the three colors separately. In three-color work we use plates sensitive to all three primaries. We make one exposure through a red screen that will pass red light only; a second one one through a blue screen that will pass blue only; and a third, through a green screen passing green light only; and so we obtain a separate record of each color. If we did the same thing with an "ordinary" plate, no record would be obtained through either the red or green screens, because the plate is not sensitive to these colors; therefore, the only result would be a record of the blue alone, which could be produced equally well without using a filter screen at all. In monochrome photography this is all we obtain in the case of exposures made on ordinary plates; therefore, the results are deficient as records of the other colors. Every object in nature reflects white light to a certain extent, and the blue in this light affects the plate, so everything is recorded more or less. But green and red objects are recorded solely by the small amount of blue light that they reflect, while their own predominant colors remain unrecorded; therefore, the result is erroneous and also very deceptive. A great many photographers have been deceived in this way, and have been inclined to underrate the value of orthochromatic methods. Though any plate will serve to record a green leaf, yet, if an ordinary plate not sensitive to green, it will only do so by virtue of the small amount of blue that the leaf reflects. It is sometimes thought that by giving a long exposure a result equivalent to an orthochromatic one can be produced on the ordinary plate, yet this is not so in fact. If the plate is not sensitive to green no amount of exposure will record the green, and the only effect of the long exposure is a rather fuller record of the feeble blue, while stronger blues, such as sky color, become overexposed.

To obtain perfect records of green objects we must, therefore, employ green sensitive or orthochromatic plates. Such plates, however, are never as fully sensitive to the green as to the blue; therefore, if we regulate the exposure

by the blues in the object the greens are underexposed and little is gained. To enable us to give a sufficiently full exposure for the greens we must employ a yellow filter screen that will cut out or absorb some of the blue light, and so prevent overexposure in the blue, but at the same time allow the green light to pass unaffected. If this screen is to permit us in one exposure to obtain a correct record of both the green and the blue—that is, one representing the two colors in true monochrome values—it must be a fairly strong screen. If, for example, the plate is ten times as sensitive to blue as to green, we want a screen that will enable us to give ten times the exposure required for the blue alone when we work without a screen. If we use a lighter screen, we must reduce the exposure somewhat to avoid overexposing the blue, and then we do not get full exposure in the green. Perfect correction often requires an inconveniently long exposure; therefore, we often use lighter screens for the sake of convenience, but it must be understood that we cannot get perfect correction with a screen that is too light if the subject contains much blue.

Suppose, now, we have an orthochromatic plate sensitive to green and also a screen adapted to give a true representation of green and blue, what will happen if the subject includes yellow and red as well as the other two colors? The yellow is a mixture of green and red, but as the plate is not sensitive to red, it can only record the green portion of the yellow; therefore, yellow is only half represented and red not at all.

The remedy for this is the use of a plate that is sensitive to red as well as to blue and green, and it is obvious that if this plate is equally sensitive to red and green, then with the aid of a yellow screen that will pass both these colors fully but hold back or absorb a certain proportion of the blue we can obtain true records of the three primary colors —blue, green, and red—and also of yellow and all other mixed colors. Such a plate is styled "panchromatic," and it is, of course, the plate to use whenever perfectly true color rendering is required.

It is obvious that as the purpose of the filter screen is only to prevent overexposure of the blue during the time necessary to obtain full exposure of the green and red, the strength of the screen required varies a good deal with the subject. If there is very little blue, a light screen is sufficient, while if there is no blue, no screen at all is wanted; but there is always a certain amount in the white light reflected from the green and red. Suppose in such a case we omit the screen, then the red and green objects considered alone would seem to still require as much exposure as if we used the screen. But they are now reënforced by the blue, which the screen would have cut out; therefore the exposure must be reduced to avoid overexposure. In a case like this an ordinary plate would, of course, require a very long exposure, because it would be insensitive to the predominant colors; therefore, it sometimes happens that a panchromatic or orthochromatic plate is much faster than a rapid ordinary plate when used without a screen on certain subjects. It may really be less sensitive to blue and, therefore, slower on a blue object, but still be much faster on a green or yellow one containing very little blue. In practice an orthochromatic plate used without a screen has little or no advantage over an ordinary plate if the subject contains much blue as well as other colors, but if the blue is very feeble compared with the others, then the orthochromatic plate is distinctly advantageous, even though a screen is necessary to produce a perfect effect.—*Photo Notes.*

# THE CHEMISTRY OF SULPHIDE TONING.

THE frequent failure of the sulphide toning process, writes Mr. Douglas Carnegie in a recent issue of the *British Journal of Photography*, is a subject of such perennial correspondence and inquiry that an examination into the nature of the degraded tones so often obtained, together with a quantitative investigation of the deterioration of sulphide solutions seemed to be desirable.

### *The Sulphuretting Solution and the Bleach.*

The sodium sulphide used in this investigation was the colorless crystalline variety of commerce. The crystals proved on analysis to be the hydrate $Na_2S.9H_2O$ with 2.4 per cent. of adhering water of deliquescence. The solution used was obtained by dissolving 10 grams (roughly weighed) of these crystals in 1 liter of water. On titration with decinormal iodine, the solution so prepared was found to contain exactly 0.3 per cent. of anhydrous $Na_2S$. This is rather a dilute solution, but the dilution was purposeful, the decomposition of strong solutions being so exceedingly slow. It follows from the results of the above-mentioned titration that some 33⅓ grams of the crystalline sulphide must be dissolved in a liter of water to furnish a true 1 per cent. solution of $Na_2S$, and my experiences lead me to advise that nothing very much more dilute than a true 1 per cent. solution of $Na_2S$ should be used in practice.

The bleaching solution used had the following composition:

| | |
|---|---|
| Potassium ferricyanide . . | 34.8 grams. |
| Ammonium bromide . . . | 10.8 grams. |
| Water . . . . . | 1000.0 c.c. |

I have before pointed out that the recipe for the bleach given in the *B. J. Almanac* contains more bromide than is necessary for the reaction involved, and that this superfluity of bromide is not only prodigal, but dangerous. For the sub-bromide of silver constituting the material of the bleached image is soluble in ammonium bromide, and any excess thereof is apt on occasions of prolonged bleaching to discharge delicate detail from the picture. The above specified bleaching solution, if kept in a well-stoppered bottle in the dark, may be used over and over again to complete exhaustion. It has been said that the solution deteriorates on frequent use by the development in it of potassium cyanide as a decomposition product. I can find no support for such a statement. A bleaching solution which has been in repeated use since last September did not contain a trace of cyanide, and, moreover, gave tones indistinguishable from those given by a freshly made up solution. In testing the bleach for cyanide it was acidulated with tartaric acid, the acidified solution extracted with ether, the etherial solution extracted with caustic soda solution, and this latter solution tested for cyanide by means of the Prussian blue reaction. No Prussian blue was formed, though it was formed in a control experiment conducted concurrently in which a trace of cyanide was purposely added to the bleach.

And here I may mention a matter of some importance in the practice of sulphide toning that seems hitherto to have been overlooked. It has reference to the duration of the washing after bleaching. There appears to be a prevalent idea that, in general, washing cannot be overdone. This is by no means always true. Long washing after bleaching leads, at any rate when weak sulphuretting solutions are in vogue, to poor tones. Indeed, so degrading an effect on the final tone has a protracted washing after

bleaching that a great number of comparative toning trials made before I recognized the deteriorating effects of long washing had to be repeated, the time of washing being kept constant, and not protracted at that. Excellent warm tones are, in fact, obtained when the merely rinsed bleached print is plunged directly into the sulphide bath. The only objection to such procedure is that the sulphide solution must be thrown away after use. Several other instances might be adduced of the heresy that washing is universally a virtuous operation which cannot be overindulged in to detriment. Attention has recently been drawn in these columns to the injurious effects of protracted washing in the chromium intensification process. I, and probably others, have noted the same baneful influence in the case of mercurial intensification, and hundreds of the lantern slides of my salad days came to untimely ends in the lantern—the pock-marked victims of supererogatory ablutions.

It is to be noted that the injurious effects of long washing are in evidence only when using dilute sulphuretting solutions whose sulphide content has fallen to about ¼ per cent. If true 1 per cent. solutions of sulphide are employed, the duration of the wash has no influence on the tone finally obtained. If *very* dilute (*e. g.*, 0.04 per cent.) solutions of sulphide are in use, then, again, the duration of the washing is immaterial, for with these extremely attenuated solutions the tones are in any case poor.

This peculiar and unexpected result (viz., that the duration of the wash following bleaching is of importance only in the case of sulphide solutions of intermediate strengths) was confirmed by repeated trials. Since a short washing is never injurious, and since under certain conditions a long washing is injurious, the recommendation to habitually curtail the washing should be acted on both on the score of economy in time and certainty of satisfactory issue.

Throughout the investigation comparative toning tests were made on machine-printed bromides of the same subject. These prints were of such uniformity as to render comparisons unequivocal. For an unlimited supply of these prints I must express my indebtedness to Messrs. Butcher, Curnow & Co., of Blackheath.

### *The Products of Decomposition of Dilute Sulphide Solutions.*

The possible products of decomposition of sodium sulphide solutions are sodium salts of thiosulphuric and the thionic acids, caustic soda, sulphur, and polysulphides of sodium.

In solutions of sodium sulphide kept bottled in the dark and of such concentrations as this investigation concerns itself with, the equation of decomposition would seem to be a very simple one. The only decomposition products formed under these conditions are sodium thiosulphate ("hypo") and caustic soda. The decomposition is quantitatively expressed in the equation:

$$2Na_2S + 2O_2 + H_2O = 2NaOH + Na_2S_2O_3.$$

A certain proportion of the caustic soda resulting from this primary reaction is, however, transformed into sodium carbonate by the carbon dioxide in the air. When decomposition is complete there is no residue insoluble in acids, as would be the case if free sulphur were formed; nor is the solution at any phase of its decomposition colored greenish yellow, as would be the case if polysulphides of sodium were formed.

A full account of the analytical details and the calculations founded thereon which established the above equation of decomposition would be out of place in the pages of a photographic journal. Let it suffice here merely to state, broadly

and comfortably, the scheme of analysis adopted. The combined amounts of undecomposed sulphide and of hypo present at any time was determined by acidifying a measured volume of the solution with acetic acid and titrating with decinormal iodine solution. The sulphide was removed from another measured volume of the solution by shaking vigorously with repeated additions of bright copper turnings till the filtrate showed no change of color with lead hydroxide dissolved in soda—by far the most delicate of all the tests for the presence of soluble sulphide. A measured volume of the sulphide-free filtrate thus obtained was titrated with acid; the result gave the $Na_2O$ present as NaOH, $Na_2CO_3$ and $Na_2S$. Another measured portion of the sulphide-free filtrate was boiled with barium chloride solution, made up to a definite volume, and the precipitate of barium carbonate allowed to settle. An aliquot portion of the supernatant clear liquid titrated with standard acid gave the alkali present as caustic soda and sodium sulphide, so that this titration, taken in conjunction with the results of the previous acid titration, permitted of the calculation of the alkali present as carbonate. The neutral solution thus obtained was titrated with decinormal iodine, so as to arrive at the amount of hypo present. Seeing that the amount of hypo and sodium sulphide was furnished by the first iodine titration, the amount of sulphide still remaining undecomposed as well as the caustic soda resulting from the sulphide decomposed could be found by subtraction.

It is quite clear that if the decomposition proceeds in accordance with the equation given, then the disappearance of every two molecular weights in grams of sodium sulphide (156 grams) must involve the appearance of one molecular weight in grams of hypo (158 grams) and two molecular weights in grams of alkali, reckoned as caustic soda (80 grams). This relationship or proportionality was established by the analyses just outlined.

Analyses of solutions of sulphide which had been exposed to bright light or had been aërated (see *post*) showed, as would naturally be anticipated, a defalcation in the amount of hypo demanded by the equation—the hypo itself having suffered a decomposition due to the insolation or aëration. Furthermore, in the insolated and aërated solutions magnesium sulphate gives no precipitate till the solution is boiled, thus proving that in these cases the alkali is no longer present in the form of caustic soda and the normal carbonate, but in the form of sodium bicarbonate.

### *The Rate of Decomposition of Sulphide Solutions Under Varied Conditions.*

A 0.3 per cent. sulphide solution was divided into three portions. One portion, A, contained in an uncovered glass cylinder was exposed out of doors during a run of exceptionally bright sunny weather. Another portion, B, which was protected from light, had air aspirated through it by a filter pump. The third portion, C, was kept in a bottle—thickly swathed in brown paper—in a cupboard. Toning tests of the three portions were made daily, and analyses of the solutions were made when the results of the toning tests seemed to demand them.

When fifteen days old the tones given by A showed manifest signs of degradation, the warm purplish sepia of normal sulphide toning giving place to a cold sepia very similar in hue to the pigment made from beechwood and known to water colorists as "bistre." A day later the bistre tones gave place to raw yellow browns. At this stage the solution contained 0.047 per cent. sodium sulphide and 0.158 per cent. hypo.

When eighteen days old A ceased to tone altogether; the substance of the bleached image was first dissolved out of the gelatine by the hypo now present to the extent of 0.174 per cent., and then thrown down as a reddish brown precipitate by the remaining traces of still undecomposed sulphide, which amounted to 0.016 per cent. A faint indication of the original picture, however, still remained on the paper, and there is little doubt but that this residual image is none other than the so-called residual image of primary development. It is identical in strength and appearance with the image which remains when the silver of primary development is dissolved from an untoned bromide print by persulphate, also with the image which survives when a bleached bromide print is treated with hypo.

The aërated solution B began to show manifest signs of its deterioration on the eleventh day; the tones given from the eleventh to the fourteenth day being bistre instead of a warm purplish sepia. On the fifteenth day, when the solution contained 0.016 per cent. sulphide and 0.1 per cent. hypo, there was a partial solution of the bleached image, and the final tone was khaki colored in the shadows and dirty yellow in the high lights. On the sixteenth day the last trace of sulphide had disappeared and the bleached image dissolved away in the hypo (now present to the extent of 0.11 per cent.), leaving only the residual image of development.

The bottled solution C retained good toning power for weeks after the solution A and B had completely decomposed.

It would appear then from these observations, as I think would generally be anticipated, that both aëration and exposure to light greatly accelerate the rate of decomposition of sulphide solutions; aëration, however, being a more powerful accelerator than insolation. Another set of observations proved that the instability of sulphide solutions increases with the temperature. The solution A, as we have seen, took eighteen days to decompose; another solution of slightly greater concentration and exposed during a run of much hotter weather had completely decomposed in eight days.

It will be convenient and conducive to brevity, if we here make a classification of the successive phases of tonal degradation as follows:

1. The bistre phase—the toned image becoming progressively colder and rawer.
2. The ochreous phase—the image getting progressively lighter and often showing metallic glance in the shadows.
3. The phase of incipient solution of the bleached image with reprecipitation in the sulphuretting solution, a faint yellow image remaining in the gelatine.
4. The phase of complete solution of the bleached image, leaving only the residual image of development in the gelatine.

The question now presented itself: Is the ratio hypo to sulphide, necessary to bring about any specified one of these phases, constant; or is the ratio a function of the particular concentration of the sulphide solution used?

A long series of experiments, involving sulphide solutions of all concentrations from 2.5 per cent. to 0.05 per cent., proved that the ratio is not constant but rises in value with the strength of the sulphide. A few illustrative instances are quoted at random from my notes. The ratio hypo to sulphide which must be reached to bring on phase (1) is about 8 to 5 or 1.5 per cent. sulphide, but only 2 to 5 for 1 per cent. sulphide. Again, the ratio for phase (3) was 8 to 1 in the case of a 1 per cent. sulphide solution, and only 4 to 1 for a solution of 0.05 per cent. concentration. With the 2.5 per cent. sulphide, phase (3) was never realized, although the ratio hyposulphide was made very large. In all these

experiments hypo of known strength was added to *freshly prepared* sulphide solutions—the mixtures, of course, simulating stale sulphide solutions.

A very curious, and to me inscrutable, fact was noticed when working with the 2.5 per cent. sulphide solution. Such a solution (which, be it said, is far too concentrated for general use in toning) gives poor brown tones, not to mention blisters. The curious fact is that the addition of hypo to such strong sulphide solutions *up to a certain limit*, instead of degrading the tone, improves it, rendering it warmer and more purple. The limit of betterment is reached when the ratio hypo to sulphide is about 1 to 1½; if this limit be exceeded, there is progressive but slow degradation. Though the observation has no significance for the practice of sulphide toning, yet it seems desirable to put on record a case where contamination with that *bête noire* of the dark room, hypo, is found to be not only not baneful, but positively beneficent.

### *Attempted Explanation of the Vagaries of Sulphide Toning.*

The fact that such different sulphuretting agents as sodium sulphide, sodium sulphydrate, and sulphuretted hydrogen all furnish identity of tone under comparable conditions at once suggests the application of the theory of ionic dissociation to our problem. There is, too, another very important fact that challenges attention in this connection—the fact that very dilute solutions of sodium sulphide, even when quite fresh and therefore hypo-free, give cold bistre tones in strong contrast with the warm sepias of normal toning.

If a bleached print is placed in, say, a 0.002 per cent. sulphide solution, it tones very slowly to a light brown. The toning in such a dilute solution may demand hours instead of seconds for completion, and a large volume of solution must be used to insure that the absolute quantity of sulphide present is more than sufficient to sulphurize the bleached image. Furthermore, and this is a most important point, the tone of a print so obtained is not improved by subsequently treating it with a strong sulphide solution—indeed, it is not changed in the slightest degree by such treatment.

Sodium sulphide in solution dissociates into Na and S″ ions. But the S″ ions interact with water producing SH′ and OH′ ions, thus,

$$S'' + OH_2 = SH' + OH'$$

so that solutions of sodium sulphide (as also sodium sulphydrate, and sulphuretted hydrogen) present us with complex equilibria implicating in all three cases the ions of Na, S, SH, an OH. Though the S″ ions are probably present only in very small quantity, yet the characteristic reactions of the substances named, used in solutions of ordinary laboratory strength, are due entirely to the S″ ions. For immediately any S″ ions are removed from the equilibrium by the chemical change in progress, the SH′ and OH′ interact to produce a fresh supply. May we not plausibly assume that in very dilute solutions of sulphide the stable SH′ ions alone persist—practically all the unstable S″ ions having been hydrolyzed? In accordance with this assumption we would attribute to the action of S″ ions the purplish sepia tones given by fresh sulphide solutions of moderate concentration, while the colder brown tones given by very dilute solutions would be attributable to the interaction of the SH′ ion with the bleached image, the compound formed being so stable as to resist any subsequent change from the S″ ions when placed in stronger sulphide solutions.

The role played by the hypo of decomposition in stale sulphide solutions would seem to be somewhat as follows:

When present in relatively small proportions the hypo influences the ionic equilibrium system in such a way as to diminish the concentration of the S″ ions relatively to that of the SH′ ions—thus producing tones indistinguishable from those obtained by the use of very dilute but uncontaminated sulphide. As the proportion of hypo to sulphide increases, a race ensues between two rival reactions. In virtue of its concentration the hypo now diffuses into the gelatine film more quickly than the sulphide; the bleached image is dissolved by the hypo before the S″ or SH′ ions have had time to reach and directly attack it. By the time the S″ and SH′ ions have penetrated the film they find the film occupied, not by a solid subbromide of sliver, but by a solution of $NaAgS_2O_3$, and its ions $Na^{\circ}$, $AgS_2O_3'$. The product of the interaction of the S″ and SH′ ions with the complexion Ag $S_2O_3'$ in the presence of a colloid such as gelatine is a colloidal solution, which stains the gelatine yellow. Hence the so-called ochreous phase. If, *in vitro*, dilute sulphide ($\frac{1}{8}$ per cent.) be added to a solution of silver bromide in hypo—the hypo to sulphide ratio being adjusted to about 7 to 1—a yellow solution is first formed, but this soon becomes colorless, depositing a brown precipitate. If, however, gelatine is present, the yellow solution is permanent.

When, owing to prolonged decomposition, the proportion of hypo present rises still higher, it diffuses into the film, dissolves the bromide of sliver and the solution of $NaAgS_2O_3$ diffuses out again before the attenuated sulphide has had time to come into action. When the sulphide does react it is with the $NaAgS_2O_3$, which has emerged from the film; away from the restraining influence of the gelatine it is precipitated by the sulphide as a reddish brown precipitate, which appears, as it were, to effloresce up out of the image if the dish is kept steady, but is at once disseminated through the liquid when the dish is rocked, or the surface of the print wiped with cotton wool. The only remnant in the gelatine of the original image is now the faint residual image of primary development.

There is one other peculiarity of the toning produced by stale sulphide that deserves mention. It consists in the fact that the degradation of tone is very generally confined to the heavier shadows, while the high lights still continue to tone normally. This double toning can, I believe, be attributed to purely physical causes involving relative rates of diffusion and the relative velocities of the two reactions between the bleached image and the sulphide, on the one hand, and the bleached image and the hypo on the other. If we may be permitted to assume that the hypo diffuses more rapidly than the sulphide, and that the velocity of the sulphide reaction is greater than that of the hypo reaction, then double toning of just such a character as is in evidence must result.

*Summary of Results Affecting Practice.*

1. The bleaching solution—which should be kept low in bromide—can be used to exhaustion without affecting tonal values.

2. The wash after bleaching should be of short duration.

3. The sulphide solution should not have a much lower concentration than 1 per cent. anhydrous sulphide. (About 33 grams of the hydrated crystals per liter of water will give an approximately 1 per cent. solution.) Though the decomposition of solutions of this strength is very slow when they are kept well corked and in darkness, yet if absolute constancy of tone is essential, it is necessary to use freshly made solution.

5. The presence of hypo in the bleaching bath (the limiting amount depending on the percentage of sodium sulphide present) is, of course, fatal. A considerable amount of hypo may be present in the sulphuretting bath, with either no effect at all on the resulting tone, or no more disastrous effect than the production of cold brown tones in the place of warm purplish sepia ones.

6. The polysulphides of sodium (made by boiling sodium sulphide solution with sulphur) give colder tones than the monosulphide, and the solutions deteriorate very rapidly. Yellow "sulphide of ammonium," so-called, also gives colder tones than sulphide of sodium.

7. There seems to be no satisfactory method of bettering a sulphide-toning failure by any process of rebleaching and resulphuretting. The only procedure with a failure is ruthlessly to scrap it, and begin *de novo*, using a freshly made sulphide solution.

8. For bringing out blocked up detail in the heavy shadows of toned prints I have met with no better specific than "lustraline." It is advisable to heat the print before a gas fire after waxing it.

## STRAUSS.

THE following breezy write-up of our friend Julius Strauss is from the pen of Thomas Dreier, and appears in the September issue of *The Business Philosopher*:

That man Strauss had absolutely no business to write such a letter to such a sainted character as myself. It is true that I penetrated into the fastnesses of his reserve and asked him for the sad, sweet story of his life, but what right had he to come back with such a tantalizing letter as this:

> Do you know what I would like to do instead of firing the enclosed at you through the mail? I'd like to take you to the Growlery of the Studio (of course you don't know where nor what that is) and be fortified with some real cold Budweiser to revive you from time to time while reading.

I fear me much that this man Strauss is a bold, bad man, and some day, when a certain muscular evangelist that I know of gets through talking about what he intends to do to save the world and starts in to do something along that line, I am going to send him to St. Louis to tackle this man who shamelessly advertises Budweiser in a personal letter.

But even if Strauss is one of those shameless men who doesn't hesitate to be seen hobnobbing with Bill Reedy and Elbert Hubbard, not to mention the Big Wigs of St. Louis society, he is one of the men who has done much to advertise America in foreign art centres.

Strauss is a photographer.

Strauss Studio is one of the show places of St. Louis. One who visits St. Louis and fails to visit Strauss cannot lay claim to having seen the town.

Strauss is one of the master photographers of the world.

At Dresden, Germany, under the patronage of the King of Saxony, there was recently held the greatest exposition of photography in the world. It covered every phase of camera work, demonstrating the wonderful progress of an art that has covered scarce three score years in its discovery and development.

Out of the fifteen thousand photographers (professional) in the United States, but forty were thought worthy of being invited to submit specimens of their work. Less than three hundred pictures from this country were accepted and placed on the walls.

Of these, fifteen bore the Strauss signature.

And here is what *The British Journal of Photography* had to say of *them:*

"In no portraits do we seem to discern the suggestion of the photographer so plainly as in those of Mr. Strauss of St. Louis. There is not one face that looks dull or uninterested. It would appear that Mr. Strauss is determined they sha'n't. Some seem mildly to disapprove what is going on; some seem amused; children have the appearance of liking it immensely."

Mr. Strauss has succeeded because he has ever striven to get away from the ordinary, the conventional, the stereotyped, and the look-pleasant-please imbecility in portrait photography. He has succeeded in replacing these with pictures that have and show character, where expression is free from self-consciousness, where pose is natural, and where interest is centred in the face.

A wise man by the name of Shakespeare, who is now dead and gone (may his soul have rest), recognized the essentials of good portraiture. Listen to this from Hamlet:

"Look here, upon this picture, and on this;
See what a grace is seated on this brow;
The front of Jove himself;
An eye like Mars, to threaten and command;
A combination, and a form, indeed,
Where every god does seem to set his seal,
To give the world assurance of a man."

And here is a description of a photograph which, for some reason, failed to bear the Strauss imprint:

"Look you now, what follows;
A mildew'd ear,
Blasting his wholesome features. Have you eyes?
Could you on this fair mountain leave to feed,
And batten on this moor? Have you eyes?
What judgment
Would step from this to this?

Strauss has won his way to the front solely because of the quality of his goods. He has made the best. He has never spared expense. A picture bearing his imprint had to be as close to Perfection as possible. Strauss has never been in a hurry. His philosophy of life is somewhat like that of the Epicureans.

And, don't forget, the Epicureans were not the "eat, drink, and be merry, for tomorrow you die" fellows.

The Epicureans believed in being happy every day. They did not take kindly to the belief that to be happy hereafter one must be miserable now.

This St. Louis man, therefore, has surrounded himself with the best. He has royal good friends, beautiful statuary, quality furniture, artistic decorations—everything that makes for contentment is in his environment.

This environment he shares with his customers. He aims to interest them. He seeks a point of contact. And as he seeks he studies them. As they talk they unconsciously pose for him, and when the right pose is discovered Strauss ceases to be the loafer. He gets action. A true art photograph is the result.

Few people feel at ease in a photograph gallery. Most people enter in an antagonistic frame of mind.

According to a carefully prepared estimate, there have been uttered in my hearing, in my thirty years' career as a photographer, on 783,461 occasions, some such expressions as, "I would just as soon go to the dentist," "I feel like a fool," "I know I'm making a monkey of myself," "I'm sure I'll break the camera," "I feel as if I had just lost my best friend," and similar other original witticisms.

Strauss makes his customers overcome that feeling. The fact that his studio is a place to which St. Louisans bring visitors of culture and refinement has something to do with making it impossible for such childish feelings to get into control. In the presence of Strauss, one feels that one is, indeed, in the presence of an artist.

Strauss deserves mention here because he is a quality man who is doing quality work. He is also a commercial success. There was a time when his daily receipts were less than one dollar—money received from occasional tintype customers.

Absolutely without capital and no friends upon whom he could depend, Strauss has overcome all obstacles placed in his path. Today he owns a studio which is said to be the most valuable and largest building in the world devoted wholly to portrait photography. His patrons come from all nations—not infrequently his clients come from foreign shores.

He began as an apprentice when hardly fourteen years of age. All his life has been spent in doing his own work. It can be seen that Strauss has risen in spite of lack of advantages, educational and social, which so many men deem so essential to success.

This man Strauss has succeeded because he has ever loved his work. He has put into his photographs his very best. He has always aimed to serve, knowing that if he served others he would serve himself in the best way.

But still I wonder if Strauss offers a glass of Bud—but—well, anyhow I *am* curious.

## STAIN REMOVERS.

*For slightly discolored negatives* use acid-chrome-alum. For appreciable yellow pyro-stain, acid-iron-alum, or potass. persulphate.

*Negatives to be intensified* may be placed for fifteen minutes in acid-alum or acid-chrome-alum, which destroy the last traces of hypo.

*Acid Sulphite.* Twenty-five per cent. soda sulphite solution, 6 oz.; tartaric acid, 2 oz.

*Potass. Iodide and Hypo.* Hypo bath (1 in 4), 10 oz.; potass. iodide (5 gr. per oz.) solution, 50 minims. Acts very slowly.

*Salt and Nitric Acid.* Add a drop or two of nitric acid to salt, 10 gr.; water, 1 oz.

*Acid-alum.* Alum, 1 oz.; water, 20 oz.; to which add hydrochloric acid, ½ oz.; or citric acid, ½ to 1 oz.

*Acid-iron-alum.* Citric acid, 1 oz.; ferrous sulphate, 3 oz.; alum, 1 oz.; water, 20 oz.

*Iridescent Edges on Plate.* Weak Farmer's reducer—*or* alcohol—with chamois leather. The latter removes by friction, not chemically.

*Hydrokinone Stains.* Apply weak Farmer's reducer to dry negative with cotton wool. Rinse frequently. *Or*, bleach in potass. bichronmate, 15 gr.; hydrochloric acid, 5 minims; potass. bromide, 5 gr.; water, 1 oz. Wash, and redevelop in clean metol or other developer. *N.B.*—Plates developed with hydrokinone should be well washed before fixing.

*White Scum from Oxalate Developer.* Rub negative with cotton wool wetted in: Hydrochloride acid, 4 drops; water, 1 oz. *Or*, immerse plates in alum solution.

*Thiocarbamide*, 10 gr.; citric acid, 5 gr.; water, 1 oz. *Or*, thiocarbamide, 10 gr.; alum, 10 gr.; acetic acid, 5 gr.; water, 1 oz.

*Potass. Persulphate.* Use ½ per cent. solution for five minutes; rinse, and repeat.

*Thiosinamin*, 8 gr.; citric acid, 4 gr.; water, 1 oz.

*Hypoglycerine.* Hypo, 1 oz.; water, 1 oz. Dissolve, and add glycerine, 1 oz. Paint over dry negative and leave twelve hours.

# TRADE NOTES.

FROM JAMES FRANK & SON, of Atlanta, we have received for examination two of Rodenstock's double anastigmats—a Eurynar anastigmat, series 1, *f*/6.8, and an Imagonal, *f*/6.5. The "Eurynar" is a symmetrical doublet, and consists of four thin uncemented glasses highly corrected. The image is a brilliant one. The corrections of the lens are of a very thorough character. Astigmatism, flare, coma, spherical aberration, the troubles from which the uncorrected lens suffers,

are eliminated. The definition is crisp, the field covered flat, and large enough to allow for a liberal rise of front. The results we obtained, of various subjects—portraiture, architecture, and landscape—amply demonstrated the good lens qualities claimed by the manufacturer.

The Imagonal is a universal anastigmat working at *f*/6.5. It is a lens suitable for portraits, groups, landscapes, and interiors. The rear combination of this lens can be used alone, doubling the focal length. Free from optical defects, the Imagonal is a lens that will give the greatest satisfaction to the serious worker. It is one of the best lenses on the market for general hand-camera work. When we add that the lenses are, mechanically, beautifully made and finished, and are listed at unusually attractive prices, we do not have to urge the man who is interested to write for detailed catalogues which give full particulars.

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WE are in receipt of a copy of the fourth edition of the Defender *Tipster*, and, judging by the frequency with which such booklets are issued, it would appear that the manufacturers' efforts to make photography the "best-explained" profession is fully appreciated by the photographers. The Defender *Tipster*, while it is primarily an advertisement for the Defender Photo Supply Co., of Rochester, is, in fact, a great deal more than that. It is a text-book of photography, covering the art of printing and development, and, more than that, giving hints which every professional photographer can use in his business. The *Tipster*, fourth edition, evidently was compiled at considerable expense, but the manufacturers are sending it free to those who request it.

*Lens Pointers* is a useful little booklet that should be in the hands of every photographer. Intended for the use of photographic dealers and salesmen, it contains information which is valuable to every user of a lens. Anything which will help the photographer to a better understanding of the tools he uses should be welcome, hence our strong recommendation of *Lens Pointers*. Its chief value lies in the brief, plain definitions of such terms as astigmatism, speed, rectilinearity, curvature, etc. The BAUSCH & LOMB OPTICAL CO., of Rochester, N. Y., will be glad to mail you a copy.

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THE ANSCO COMPANY advise that they have had to materially increase the floor space of their St. Louis office, owing to the necessity of carrying larger stocks to meet the rapidly increasing demand for their goods. This is a guarantee that, in future, purchasers in this section will get even better service than ever.

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THE A. M. COLLINS MANUFACTURING COMPANY is securing a harvest of new members for their Coöperative Sample Club. The payment of a single dollar entitles to the privileges of the Club, which, we are told, are many and worth many times the nominal membership fee.

The beautiful box of fall samples which is sent at once to all new members is an education in itself, and is enthusiastically spoken of by all those that have seen it. Hundreds of commendatory letters are already on file, and they keep on coming.

We sincerely compliment the A. M. Collins Company for the splendid success of their up-to-date Coöperative Club, and for the fine line of mountings, novel and exquisitely exclusive, which they are sending out to its members in so liberal a quantity and so attractive a fashion.

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KRUXO ENLARGEMENTS. Wishing to make a quantity of enlargements in the shortest possible time, we experimented with some of the KILBORN PHOTO PAPER CO.'S well-known Kruxo, and were highly pleased with the results obtained. We made an enlarging box on the lines laid down by Mr. Claudy in the September *Camera*. Into this we fitted a Series II Cooke Lens working at *f*/4.5. The enlargements, 5 x 7, from 3¼ x 4¼ negatives, were beautifully sharp and clear, and, using Kruxo Special Portrait and Carbon Matt, were obtained with exposures to a north light of two and three minutes, which is quite rapid enough to enable you to run off quite a number of vacation negatives in a very short order. Very pleasing sepia prints can be made on Kruxo by first development, but so far we have been well satisfied with the beautiful platinum-like black-and-white prints obtained.

# WILSON'S PHOTOGRAPHIC MAGAZINE

A MONTHLY MAGAZINE FOR PRACTICAL PHOTOGRAPHERS

Founded in 1864 by EDWARD L. WILSON
L. W. WILSON, Publisher and Proprietor
T. DIXON TENNANT, Editor

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## EDITOR'S TABLE.

ANGLO-AMERICAN RELATIONS IN PHOTOGRAPHY.—On Thursday, August 26, Pirie MacDonald, of New York, was entertained at supper, at Gow's Restaurant, London, by an impromptu party of British photographers. Present were: Lang Sims, President of the Professional Photographers' Association, in the chair; Alfred Ellis in the vice-chair, and Ernest Elliott (Elliott & Fry), S. Herbert Fry, E. O. Hoppé, Alexander Mackie, Richard Speaight, H. Snowden Ward, and Arthur Weston. Others who expressed regret at inability to be present, owing to the very short notice which alone was possible, were H. Walter Barnett, F. A. Bridge, George E. Brown, Furley Lewis, Louis Langfier, Reinhold Thiele, and R. Fellows Wilson. After the usual loyal toasts, the chairman briefly and heartily welcomed the guest of the evening and proposed his health.

In reply, Mr. MacDonald said that he felt his capacity to be representative, rather than personal —representative of the Professional Photographers' Society of New York, and of a number of men who were in every sense the brothers of his hosts. In America it had been realized, more fully than in this country, that the best friends for a photographer were photographers; that the best companion for any man was a man who had similar experiences, aims, tastes, and difficulties. In the P. P. S. of N. Y. it was found that men attended the informal social meetings with pleasure and zest, because they could always gain something, but most of them went with greatest pleasure to a meeting when they had something to give to others. There was still some pettiness and still some unfair competition in New York, but the average photographer was in a more firmly established commercial position, especially the middle-class photographer, and his position was the basis of the American good prices and good profits. Even the low-priced man was in a sound position, as a rule; and he was respected by his neighbors because his work did not interfere with theirs, but appealed to a distinct class of custom which they could not reach. The result was that the three-dollars-a-dozen man met the kings of the craft at the Society's meetings, asked them freely for any information or assistance that he wanted—and got it.

During the last four years many of the American photographers had been at work influencing the new Copyright legislation, which had just been passed. The bulk of the work had fallen upon B. J. Falk, one of the greatest and most unselfish men in the craft, a magnificent organizer, and a giant for detail.

They found that photography was not seriously recognized in any of the draft bills, and that many of the representatives of writers, printers, etc., wished to give no copyright to the work of the photographer. The photographers refused to consider any position of privilege or of inferiority, so that under the new law they stand on all fours with all American authors.

The "manufacturing clause" was a most important one. Under the old law, copyright could only be had in books, photographs, etc., if they were printed from type set, negatives made, etc., in the United States. This clause remained in the new law for all forms of art work except photography. Photographers had insisted on the removal of the word "negative." *Therefore, under the new law, a British or other foreign subject can obtain copyright in his photographs on exactly the same terms as an American citizen.* This was a real expression of the feeling of brotherhood, a free-will offering to the photographers of the world, without any bargaining, terms, or conditions; and if authors in other lines still felt that the "manufacturing clause" was a grievance, he hoped photographers would feel that their brothers in America had tried to be generous. Reciprocity would be appreciated; he felt sure that in influencing the copyright law that would soon be under consideration in Britain, the British photographers would guard the Americans' interests as far as possible.

The conversation then became general, and questions of copyright, international coöperation, price-cutting, and the Photographers' Association of Great Britain were discussed until a late hour.

By Townsend Studio, Lincoln, Neb.

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# WILSON'S PHOTOGRAPHIC MAGAZINE

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## AWARDS AT THE DRESDEN EXPOSITION.

HONORS never come singly. Cook and Peary had hardly discovered the North Pole when news came from Dresden that out of twenty gold medals offered in the professional class, America carries off no less than nine, and fourteen silver medals out of forty-five offered.

To the promoters of the American section, the greatest surprise was not that so many medals were awarded as that any were awarded at all.

When Mr. MacDonald, to whom the task of gathering the American pictures was intrusted, wrote to the various photographers for examples of their work they were assured that the pictures would be exhibited as a non-competitive exhibit, and that no distinguishing awards would be made. We have it on the best authority that this was the distinct understanding given to Mr. MacDonald, and that no one regrets more than he that this agreement was broken and distinguishing awards were made. Our good friend, Herr Rudolph Dührkoop, can possibly throw some light on the matter.

That the awards were conscientiously made and well placed goes without saying. A glance down the list of medalists shows that our convention judges are backed by the opinions of the foreign jurors. There were not, perhaps, enough gold medals, for some of the silver medalists were either badly represented or misplaced according to American standards.

The following is a list of photographers who were invited to exhibit, with the number of prints hung: Alman & Co. (9), Baker Art Co. (5), A. F. Bradley (10), A. L. Bowersox (3), F. R. Barrows (2), Curtis Bell (6), Joseph Byron (4), C. S. Bateham (3), E. B. Core (10), F. S. Clark (8), R. T. Dooner, (3), E. E. Doty (3), J. M. Elliott (5), B. J. Falk (10), J. H. Field (3), J. H. Garo (10), A. Genthe (5), E. Goldensky (10), S. Ellis (5), G. M. Edmondson (5), D. Hoyt (10), E. R. Hutchinson (12), M. Janvier (5), Mrs. Kasebier (5), W. Koehne (3), S. H. Lifshey (10), H. H. Pierce (16), R. W. Phillips (5), A. T. Proctor (3), P. MacDonald (29), J. E. Mock (5), T. C. Marceau (5), F. A. Rinehart (3), J. C. Strauss (15), H. Schervee (3), S. L. Stein (6), G. E. Tingley (3) and F. W. Tyler (3).

While it is a fairly representative

list, some of our well-known workers, with national reputations, are not included.

Gold medals were awarded to the following: A. F. Bradley, New York; F. S. Clark, Detroit; E. B. Core, New York; E. E. Doty, Grand Rapids, Mich.; E. Goldensky, Philadelphia, Pa.; E. Hutchinson, Chicago, Ill.; Mrs. Kasebier, New York; P. MacDonald, New York, and J. C. Strauss, St. Louis, Mo.

Silver medals went to A. L. Bowersox, Cleveland, Ohio; R. T. Dooner, Philadelphia, Pa.; G. Edmondson, Cleveland, Ohio; J. M. Elliott, Philadelphia, Pa.; W. S. Ellis, Philadelphia, Pa.; J. H. Garo, Boston, Mass.; D. Hoyt, New York; M. Janvier, Baltimore; J. E. Mock, Rochester, N. Y.; H. H. Pierce, Boston, Mass.; R. W. Phillips, Philadelphia, Pa.; H. Shervee, Worcester, Mass.; S. Stein, Milwaukee, Wis.; and A. T. Proctor, Huntington, Va.

Just what constituted the elegibility of those who were invited, and upon what conditions they were invited to send pictures, we are unable to say, but we are under the impression that the number was restricted to ten unframed prints. The fact that individual exhibits ranged from two to twenty-nine, framed and unframed, would show that rules of entry were not adhered to, which is unfortunate since the pictures were passed upon by a jury who were bound to be more or less affected by the size and attractiveness of the various exhibits.

Accidents, however, will happen in the best regulated expositions. We extend our hearty congratulations to the medalists—gold and silver—and to the non-medalists in that they helped in the formation of a unique collection of American portraiture.

## WHY SHOULD I USE DEVELOPMENT PAPERS?

BY C. H. CLAUDY.

HAVE you ever asked yourself, or any one else, that question? Obviously, I am assuming that you are doing "standard" work, platinum, Aristo, possibly carbon. You have been using these for years, and the new papers have come and reached fame and fortune for themselves, their makers, and their users, but you have passed them by.

Why should you use them, then? What advantages have they over those papers which you use at present, and what can they offer you as an inducement to give up the material you know so well, to wander after strange gods and worship at strange altars?

Let it be understood at the outset that I, nor any other man, can give you no reason why you should discard entirely the use of platinum or Aristo or carbon and confine yourself entirely to development papers, unless your work is entirely of the development paper class. More of this in a moment.

There are merchants in your town who have a couple of automobile delivery wagons, but they still use horse-drawn vehicles. Do you know why? They find the automobile the best for long journeys and smooth roads, and to save time; the horse is better for short runs and many stops and roads full of ruts. Two conditions, two methods. If you have all conditions alike in your work, and platinum, Aristo, or carbon, or all three, fill all these conditions perfectly, you are right to pass development papers by. But the chances are ten to one that they don't, and that you are really paying out money which you could save,

and spending time in finishing a dozen carbons which you could put into six dozen royal bromides, redeveloped, for instance, with perfect satisfaction to your customer and profit to yourself. No, redeveloped royal bromide doesn't look exactly like carbon, and only a fool would say it *was* carbon, but there are many chances that your customer would be as well satisfied with the one as with the other, if given his choice, with a price inducement toward the bromide.

A moment ago I referred to a "development paper class" of work, as if there were a hard and fast line drawn between work for these papers and for the more expensive platinum. There is no such line, obviously. But if you sell cabinets at five per dozen and don't know what a thirty dollar a dozen order looks like, and you haven't tried a good developing out paper, you are sadly in need of instruction as to the best methods of bank account preservation!

The whole trouble in development paper work comes in the idea, somehow ingrained in many photographic brains, that because the first cost is cheaper the work must be cheaper, and that to palm it off on a customer is taking an advantage. It is all too true that there is some development paper being sold as platinum when the nearest it comes is to be labelled "platino"—a well-known Eastman bromide paper—but the man who is doing this sort of thing is bringing himself to the hangman's noose without any help from anyone. Development paper as a dishonest substitute for something else is much better in Smith's emporium, across the street, than yours, but development paper called anything you please so it isn't a deceiving imitation of some better-known name, and sold on its own merits, is a highly successful and much to be desired commercial factor.

The best platinum printer that ever filled a frame will fall down on development paper if he tries it alone and in his own way for the first time. Not knowing his product, ashamed of his results, unable to see or say where the trouble lies, of course he damns the product, and the proprietor himself, perhaps no better off in knowledge than his printer, concurs, out goes the d. o. p. and the chemicals, and "no more for mine" is the answer to the next development paper man who comes his way.

If there is anything in photography intrinsically easier than the making of good development paper prints, I should like to know what it is. Expose, develop, fix, wash. Precisely and exactly the same processes which a dry plate goes through in order to turn it into a negative. With proper chemicals and proper manipulation any one should turn out one hundred good prints from one hundred and one sheets of paper, which is several per cent. more than the best men can do with platinum, Aristo, or carbon, for one simple reason —variation of light.

Given the same sort of a day, the same sort of a sitter, and the same sort of plate, you would be a mighty poor operator if you couldn't make a dozen negatives all the same, in succession, wouldn't you? But if the light varies, you have to use your skill and knowledge, and even you and your expert operator sometimes miss it, don't you? To be sure you do! Well, in development paper work, the printer who uses daylight or variable light for printing except for special and exceptional cases, as in extraordinarily dense negatives, is making his first great mistake.

It is true that for the special development papers which were first put out for the amateurs, such as Velox and Azo, it was at times necessary to modify the character of the negatives produced in order to print upon them in the way you wanted your results to look. But not now. The newer development papers,

made expressly with the idea of finishing gallery portrait work, complete the range of gradation possible, to such an extent that I doubt you can produce in your gallery a negative which cannot be made to yield as good a print technically—by which I mean with the best possible gradations—upon some sort of development paper as upon any other variety of photographic paper.

Suit the negative to the paper was the battle cry of the demonstrator a few years ago—it was the great objection of the professional. Now it is, suit the paper to the negative, not only for the amateur, but the professional as well.

As a general rule, the amateur has a dozen different varieties of negatives, which he commonly makes more by accident than design much of the time. As another general rule, the average professional portrait man has one particular variety and kind of negative which he likes better than any other, and which he produces all the time. When he goes after development paper, if he hits the particular paper suited for his particular negative he gets along swimmingly, but if he doesn't—shades of the Eagle, but how he does swear! I have in mind a man whose platinum work was the delight of his customers, because it was soft, even while snappy and brilliant. For some reason or other he wanted to use some d. o. p. and started in with Velox. His results were sights! His Velox was all right, as a paper, but he happened on some regular carbon, which is a hard paper designed to increase the snappiness and contrast of thin and weak negatives, such as the overexposing amateur turns out so often, and this, coupled with his snappy and brilliantly contrasting negatives, designed for open sunlight printing on a very soft paper, produced things which sent him into fits and his customer into hysterics.

Capable and prompt in most things, orders went to the printing room to get a softer paper, and at the same time to the operator to make soft negatives. The printer went and bought him some Nepera, and the operator produced some monotone negatives which needed carbon Velox of velvet with salt in the developer, and the opposite extreme was the result—pictures in which you couldn't tell hands from sleeves or neck from dress or person from background—absolute plasters of flatness and lack of contrast. The result—

"T'ell with the development papers!"

Natural, but foolish.

Now, then, turn the page and see the successful development paper man. He takes his regular portrait negatives and he fits them with the paper which they need. If he wants a soft print, he uses Nepera. More contrasty, soft Velox. Harder yet, hard Velox. He can and does get all these papers in all kinds of surfaces, from sheets rough enough to be washboards to the glossy surfaces used for reproductions.

He prints by arc, incandescent, Welsbach gas, or plain gas or lamp light. He turns out prints one, two, ten, to the minute, all alike, all the same in gradation and color, where formerly an order for a dozen was anywhere from half an hour to three hours' work for the printer in platinum in the sun. Brown? Of course. Redevelopment is no harder than development, and is an absolutely automatic process. It is about the only process I know of, except tank development, where, if you use common sense, you can't use individual judgment, and have just got to let it work out its own salvation.

Most development papers can be had in white or cream—Royal Bromide has begot Royal Velox, and Royal Velox, Royal Nepera—all soft cream-tinted papers which are especially suitable for the redevelopment process on account

of the tonal agreement between the cream of the highlight and the sepia or brown of the shadows.

For large work there is scarcely an opportunity for a comparison between bromide and platinum, unless, indeed, platinum is specified and ordered with a full understanding of the price. From the same negative from which you make the original contact print you can make a bromide of any size you wish in either brown or black for about 25 per cent. of the price at which you could make a platinum. Not only is there a saving in the actual price of the paper and the liability of spoliage, but the intermediate step of an enlarged negative and the necessary positive is entirely omitted, which saves both the cost of the large plate, the small plate, and the time necessary to make it.

If you haven't a bromide enlarging apparatus, it is time you had one, and if you have a big camera suitable for making enlarged negatives you can use it for a while, until you find the kernel of economy I know to be there, when you will make it twins by the establishment of a bromide plant—either a lantern of some sort or the bromide enlarging camera which can be bought expressly for the purpose.

And bromide and development papers are pretty much the same thing, except that the development papers are more easily worked for contact printing, requiring neither dark room nor yellow light, and also, because there are a greater number of sizes, weights, and surfaces available in these regular contact printing papers than in the bromides designed for enlarging purposes.

Using the one—why not the other?

Better think it over!

## PROFESSIONAL PHOTOGRAPHERS' SOCIETY OF NEW YORK.

### Letters from President Bliss and Ex-President Bradley.

LETTER FROM PRESIDENT BLISS.

SEPTEMBER 25, 1909

BROTHER PHOTOGRAPHERS:

I send you greetings and wish you all a most prosperous season. We are bound to be prosperous and successful if we apply ourselves to our business, entering into it enthusiastically, putting our whole heart and soul into the work and making the most of our daily opportunities. Our aim should be to attain higher ideals in our profession. Let us extend to all photographers the spirit of good fellowship and encourage them to assist in raising the standard of dear old Photography.

"The men who have achieved success are the men who have worked, read, thought more than was absolutely necessary, who have not been content with knowledge sufficient for the present need, but who have sought additional knowledge and stored it away for the emergency reserve. It is the superfluous labor that equips a man for everything that counts most in life."

Our next annual convention will be held in New York City during the first week in April, 1910. I wish your hearty co-operation in making this meeting not only successful but helpful and interesting to our members.

Arrangements are being made to secure H. Snowden Ward, F.R.P.S., of London, England, President (1909) of the Photographic Convention of the United Kingdom, to give his lecture before our Society on "The Marvels of Photography."

Mr. J. E. Mock, one of the leading photographers of this State, who has an original and very successful way of his own in handling proofs, has consented to appear before the convention and tell you of his method. The question of handling proofs will be one for general discussion.

If you attended our last convention, write and give your suggestions for improving the next. There will be a question box, from which a number of questions will be selected, printed, and open for general discussion during the convention. Send in a question for that purpose.

Fraternally yours,
HARRY A. BLISS,
President.

A LETTER FROM EX-PRESIDENT A. F. BRADLEY.

Your President has requested that I say a few words at the commencement of his active duties, to which request I readily assent, and take the opportunity of bespeaking for him the same loyal support and active cooperation that was granted me. This being the case, and in view of the wonderful interest and large attendance both at our own State Society and the National Association, during their recent gatherings, despite the unsatisfactory financial condition of the country, I will make the prediction that now with a restored confidence and generally optimistic outlook, our next year's meeting will be an unprecedented one and a record breaker.

The aggressive policy of our Society since its inception has blazed the way to a truer conception of the real fraternal spirit among the professional photographers of this country, and the good work of both MacDonald and Hoyt has had time to show in its proper perspective. With the passing of the years and the fruition of their work, as we see it today, we find the foundation laid both square and true, a work which is constantly being strengthened by the addition of local Sections—the one at Binghamton formed early last spring, with a membership of about 15, and our latest acquisition at Syracuse in June, with a rousing good start of about 25 new members.

*Let the good work go on.*

Very truly yours,
A. F. BRADLEY.

NEW YORK, 1909.

## PHOTOGRAPHING CHILDREN TOGETHER.

CHILDREN are not always easy to do alone—unless the photographer is very unambitious—but when it comes to groups he literally groans, writes Will Cadby in *The Photographic Monthly*. What one aims at in a child's photograph is spontaneity, charm, and to obtain this result with two more than doubles the difficulty, for when one child may be looking pretty and unconscious, probably at the same moment the other is decidedly not appearing at its best.

If the photographer is wise, he will never attempt children's groups; there is always the excellent and well-worn excuse that justice can only be done to one sitter, and he will save himself a lot of trouble and wear of nerve tissue. However, there are some misguided photographers who are not wise, and who consider it rather dull to be too wise, and who have discovered that the difficult are often the interesting things, and who mean to try and photograph children together.

First of all, we should like to advise these enterprising folk to devote a

little thought to preliminaries beforehand, for when once the children appear on the scene they will have little time to spare.

The first essential is a good light, and unless they have a studio or their room is decidedly bright and well lighted, they had better be out of doors. They must see the camera is in good working order, looking especially to the shutter—to find it faulty when once the children are on the scene is a harassing business—and have as many slides as possible filled with ultra-rapid plates. They must arrange the background and foreground tautly and firmly, that there is no likelihood of the former coming down or the latter getting untidy. Personally, I have always advocated a plain white background for children, because, to me, it was the only one possible. It is, of course, really entirely such a matter of individual taste; but if the reader agrees with me about the advisability of leaving a single child's figure free of distracting surroundings, he will probably, with me, think it still more important that a group be given the same chance and that nothing be allowed to interfere with the delicate outlines of the children.

Perhaps a description of a suitable room may be of some help to those contemplating the same kind of work. A white background—a sheet will do just as well—is hung on the wall; it is pulled out a little at the bottom and fastened to the floor with small tin tacks. The object of this is that by slanting thus it catches more light and so appears whiter in the photograph. Then a white foreground, which in my case consists of a piece of oilcloth painted white, is laid in front of the background, pulled well up over the tin tacks to hide them, and also to avoid an ugly line where the background and foreground join. When children have bare feet it is kinder to have a large piece of white flannel. There are two windows in the room, one opposite the background and one on the side of it. "But that is wrong," says the expert; "you are using a cross light, which is inartistic." Perhaps so, but we are obtaining a good light and a flat one, which surely is more suitable to children than one which renders them with heavy shadows and dark, solid-looking bodies. To get a light, delicate effect, really suggestive of childhood, seems far more desirable than academic rectitude over certain orthodox lightings. Besides which, the window opposite the background is the chief source of light, the other acting rather like a reflector.

But to come back to our groups. Now the photographer is so far ready he must get some good anchor before the children come. It must be something very interesting to them, something so important and absorbing that it will not only keep them in one spot, but will also drive away all thoughts of self-consciousness and the camera. The white rabbit was a successful anchor, because both children wanted it at once, and were only allowed to nurse it five minutes at a time each on condition they stayed just where they were put. That the rabbit died next day does not perhaps belong to this story.

A doll's tea-service makes an excellent anchor, because it has to stand on something and has enough pieces for two to play with, and it is also so very absorbing.

Some toys are hopeless; for instance, a ball is not only useless but maddening to the poor photographer, who sees his model never still, nor in the least on the same plane. His only chance of getting good groups is to focus first and then put in the plate and watch, bulb in hand, for a good opportunity, hoping he can catch a spontaneous and pretty

attitude. If luck is against him and one or both of the children have moved enough to be out of focus, then out must come the plate and back he must go to the ground-glass and focus and begin all over again. It is for this reason an anchor is so very important.

The photographer must also remember the question of compromise comes largely to the fore in groups of children. There is so often something to be sacrificed; it is no good waiting, bulb in hand, for a perfect group. This would mean dropping the substance for the shadow indeed, and by so doing he would probably lose many charming and spontaneous little pictures. Even if a limb has to be sacrificed, it is still worth recording such busy unconsciousness.

It is no good, either, letting chances slip in the hope of seeing both faces; even if one has almost disappeared altogether, the little body will probably show quite enough individuality. With no anchor at all sometimes one child will help the other, as when the elder is taken into our confidence and asked to keep her smaller brother still. The interest of it very successfully banished all traces of self-consciousness.

If it were not that grown-ups' faces need so much consideration, there would be no easier group to do than a mother and child, for with its own mother as an anchor a child is no trouble to manage. But a grown-up face is not satisfactory at any and every angle, and needs study and care, both of which it is difficult to give when there is a piece of quicksilver on the scene at the same time.

Exposures, of course, vary according to the quality of the lighting. In the room with the two windows it is possible to get a reasonably full exposure in about one-third of a second from March to October, using very fast plates and working with the lens at *f*/8. A silent studio shutter is employed, and the bulb is pressed and released just as fast as the hand can work it; and if experience and care are combined in exposing, there need be very few failures through movement. If the work is being done out of doors, naturally much shorter exposures may be given, and an instantaneous shutter is a necessity.

Like most difficult things, photographing groups of children is fascinating work, and there is so much more variety and greater possibilities in two than one, and as what we obtain is always sure to be a little charming in spite of its faults, because of its attractive subjects, so we shall always be lured on to attempt more.

## SELLING GOODS.

WHAT are you doing to sell your goods? Probably waiting for a customer to come in and give you a chance. What are the other people in other lines of business in your town with goods to sell doing? Probably some of them are waiting for the chance, but they are the dead ones. The live ones are making a noise of some kind to attract attention and bring the customers in.

When you walk home tonight look over the line of stores in your business district. You will notice how prosperous some look, and how quite the reverse others look. How clean and well kept some of them are, and how ill kept others are.

Buy a newspaper and look through the advertisements. You will find the prosperous looking stores represented. That's all there is to getting business. Advertise. That is, of course, if you have goods to sell that you can stand back of. Otherwise it will do you

no good to attract attention, as to make the first sale and *hold your customers* for future business you must give them full values.

Now as to your business, why shouldn't you advertise just as anybody else that wants to sell? You are an artist and they are merchants, but you are both after business, and the advertising merchant is getting his. Why continue to let him take it all?

Now, granting that you have decided to place an Ad. in your leading paper, "What shall I say?" is the next question. There are many things that you can say, but one thing you shouldn't say is that you are selling pictures cheap, even though you say for a limited time only. That doesn't appeal to the people in the right way, and it makes you appear hard up. Maybe you are, but don't let them know it, or they will stay away. Nobody likes to think that you are going to pay your week's board with their money.

Your advertisement should be keyed differently, and should always carry the impression that you are making quality pictures. If price is mentioned at all, you might say "popular prices." We, however, would not advise mentioning prices even in this general way.

As a suggestion, you might run an Ad. something like this:

"A Thing of Beauty is a Joy Forever"

**That's Why Our Photos Are Appreciated**

Let us Convince you that Our Work Is Right Come in and look at some of it. You don't have to buy. Bring a Friend.

THE _____ STUDIO, STREET ADDRESS

**A Gift that Only You Can Give**

What Would be Better than a LIVING PORTRAIT of Yourself?

**THE KIND WE MAKE**

Come Now Before the Rush and Let Us Have the Order. We are Prepared to Give You the Best Your Money Can Buy.

THE _____ STUDIO, STREET ADDRESS

We don't offer the foregoing advertisements as being perfection, and you could probably do better yourself, but we want you to notice that prices are not mentioned. When you mention prices you lead the reader's mind to money, and a good many people will be unfavorably impressed, as it isn't pleasant to think of being separated from your money.

When you tell them that your work is the best and remind them that their portraits are valuable to their friends and relatives, you create a desire for the portrait.

If you wish to find out what returns you get immediately from your advertising, you might try adding a line at the bottom of your Ad. reading:

*Cut out this Ad. and bring it with you and we will give you one print free if you order.*

Be sure to say "if you order" not "with your order." Nobody will order if they don't like your work, and if they do like it they will surely order. The idea is to let them feel that it is not compulsory to order just because they happen to drop in. Then they'll come, and nine out of ten will sit and will order, if they are handled properly in the reception room.

If you are not a good receptionist, get some one that is, because you

**We Make Portraits That Please**

**BEST WORKMANSHIP**

**and PROMPT SERVICE**

The _____ Studio

STREET ADDRESS

are costing yourself a lot of money. There are other ways of creating a demand for photographs, such as sending out invitations, or special inducements through the mail, holding an exhibit twice a year or oftener at your Studio; but the easiest and most effective way to reach the greatest number of people at little expense is to do as other business men do. Talk to them through the newspapers.

Let them know where you are located and that you have confidence in your goods. They will come. Everybody wants good photographs, but they have to be told about it lest they forget.—*Artura Bulletin.*

## TRIFLES.

PERHAPS one might better entitle this note by some such phrase as "the importance of certain trifling matters in photography." In all departments of mundane affairs we may find examples of the importance of apparently small things, and the wisdom of our forefathers found expression in such wise saws as "Take care of the pence and the pounds will take care of themselves," "A straw will show which way the wind blows," "A pebble will determine the course of a river," and so on.

It is certainly true that often a quite trivial matter may be the cause of a photographic failure.

### *Dust.*

For instance, suppose a lens be left uncapped on a shelf for a single night in a rather, but not very, dusty room, *i. e.*, such a room as that occupied by the majority of town dwellers, the room having a carpet in it and a few people walking about the room during the day. These people will stir up a cloud of very fine dust, and some of this during the night will settle down on the unprotected glass of the lens. Now, such a fine layer as this is quite likely to escape our notice, but yet it is quite enough to interfere with the best performance of the lens. But one or two black smuts settling on the otherwise clean surface of the lens would be noticed and removed, yet if they be left on the lens they will do very little harm as regards interfering with the performance of the lens. Their action simply amounts to stopping, perhaps, one hundredth or less per cent. of the light, just as a postage stamp stuck on the glass of a shop window might stop a trivial amount of light, but the fine layer of dust is acting in a way comparable to a piece of very finely ground glass; and if we want to see what that means, all we have to do is to hold the focussing screen of our camera between our eye and the sun or a lamp flame.

### *Reflections.*

Then, again, what a lot of mischief may come from any part of the inside of the lens tube or fitting wearing bright and becoming a reflecting surface. How many ghost-like, mysterious markings on negatives could be traced to the edges of stops or iris diaphragms wearing bright.

Speaking of reflections, let the reader be warned against the common mistake of thinking that reflections may only come from the lens, and if that be a good dead-black inside, nothing else need be thought about. On the contrary, it is not at all uncommon to find the woodwork inside the body of the camera bright enough to do harm. To verify this warning let the reader

remove the lens and ground glass, and then putting his head under the focussing cloth, point the camera to any strong light, *e. g.*, the sun or lamp, and look for reflecting surfaces all around the part where the plate is when it is being exposed in the camera.

### *Faulty Shutters.*

Another source of trouble which more than once has puzzled the unfortunate worker is a tiny pinhole in the thin part of a roller blind shutter. As we do not often examine the inside of the camera when the blind is down, this trouble may exist and spoil many a plate before the cause is even so much as suspected.

### *A Curious Case.*

The present writer some time ago had a curious and puzzling experience with a certain camera. At somewhat long and rare intervals a plate would be fogged, and though the camera was examined again and again, the cause could not be found, until one day the ground glass was being turned back to make room for the double back plate holder, when a spot of light was noticed. To make a long story short, the cause of the trouble was that when the rising front of the camera was in one certain position an old screw hole inside the camera came opposite the slot of light and admitted light and fogged the plate. In a case of this kind one might use that camera every day for a lifetime and yet never hit upon the one position to bring mischief about.

### *A Grain of Sand.*

Another case came within the writer's experience when the whole of the exposures of an outing with a hand camera were fogged because one grain of sand somehow or other had found its way into the mechanism of the shutter and prevented the shutter closing quite light tight.

Another trouble which may come from a grain of sand is in causing the draw slide of a plate holder to jam. Yet another trouble from the same source is when a grain of sand gets between two plates when repacked after exposure for the return home. If the grain of sand gets on the film side it will most likely cut a nasty hole in the film, and this is quite sure to be in a place of some pictorial importance. If the sand grain gets on the glass side it is quite enough to cause a crack or break in the glass if the plates are packed tightly.

### *In a Dark Room.*

To go into the dark room for a moment, we are at once faced with a score of little things which may give us a lot of trouble if they are not attended to with some care. A dirty bottle or old cork is used for a new solution, and trouble results, or a stopper is laid down on a dirty work table for a moment, where it picks up some contamination which it carries to the bottle and contents on its return. Perhaps the trouble takes the form of fine spots or pinhole markings which are not, in this case, due to dust (the usual cause), but to the use of a developer taken from a bottle in which some sediment has accumulated, and as the solutions get used up this sediment gets stirred up, and so finds its way on to the plate. Again, small dust-like markings may at times be traced to chemical dust floating in the air, such as pyro, finding its way on to the plate, or it may be rust brought down by the water supply pipe from the metal storage tank or cistern or water pipes, or it may be sand or lime particles in the water.

The foregoing little things, all mere trifles, things easily overlooked, and truly as easily avoided when thought of, are given simply as examples.

When one thinks of the many ways in which it is possible for the adventures of a negative or print to take an unfortunate turn, the surprise is that ever a negative escapes the almost countless chances of coming to grief in one way or another among the many trifles which beset its path.

## ON LOOKING PLEASANT.

It was H. S. Merriman who said that a smile is frequently misconstrued by the simple-hearted into the outward sign of inward kindness. This thoughtful writer also added that many think it conciliates children and little dogs. Yet most people want smiling portraits of their friends and relations. Fortunately, these friends and relations, in most cases, have more sense than *their* friends and relations, and so we are spared from the counterfeit presentment of many an assumed smile.

I take up an illustrated paper in which lovely women show their teeth on every page. No doubt they were asked by the photographer to "look pleasant;" they have done their best, poor things, but if their great-grandchildren should ever see these pleasant smiles they will say, with one accord, "Our great-grandmothers must have been a lot of idiots to grin in this manner."

The most pleasing portraits are those in which repose and dignity appear; both the expression and the position should show these qualities. Perhaps the editors of halfpenny newspapers may wish for something more blatant to arouse the sluggish tastes of their subscribers (one who buys an illustrated paper cannot be called a *reader*), but if a portrait is to be both beautiful and of lasting pleasure, the less of the light comedy star there is in it the better it will be.

Why is this attempt at looking pleasant so distasteful to us? Because we see too often that it is only an attempt, and beneath the smile we find weariness and other expressions which speak of anything but pleasure. It was Darwin who first pointed out to us how to tell whether a smile was a genuine one or not. But it would be unkind to repeat his discovery, for are there not thousands of people who have to make their living by smiling? And after all there is something heroic in looking pleasant when the wolf is tearing at one's heart.

## PROFESSIONAL PHOTOGRAPHY AT THE ANNUAL EXHIBITION OF THE ROYAL PHOTOGRAPHIC SOCIETY OF GREAT BRITAIN.

The Professional section in the North Room is, in many respects, a great improvement on the last two or three years. It embraces a considerable variety of styles, so that any of our professional friends who visit it will find matter of interest. The room is comfortably filled, yet on the whole not overcrowded, and the walls have been so arranged that one class of work does not clash with another.

A very notable departure may be observed in the exhibition of oil prints by F. C. Tilney. Here, for the first time, so far as we are aware, in the history of professional photography,

a photographer has produced the negatives, and the printing in this particularly responsive medium, the oil process, has been done by a man who is a trained artist and has devoted his life to the pursuit of art. We have carefully examined these oil prints, particularly those in color, and they are *oil prints*, and not oil paintings on the photographic basis. By this we mean that the picture is in every case the result of pigmenting in the recognized way, the drawing being that of the lens, the color and depth of it being determined by the pigmenter. It is, perhaps, fairly easy for an artist accustomed to brush handling to take a weak oil print and immensely improve it by *painting* on it. Mr. Tilney has not done this, but has been true to his medium, and his results lose nothing in quality or effect, and gain everything in purity of technique.

The prints demonstrate in a very convincing way the facility which stands at the disposal of the pigmenter in the way of imparting a particular kind of character to his work. The two oval prints on either side of the panel have the quality of a stipple engraving, while the portraits in the lowermost row approach nearly to the effect of the mezzotint. In every case, however, we think it will be admitted that the pigmenter has retained the photographic virtue of his material, particularly the likeness and expression of the sitters, and that, we submit, is a point which is of no little importance in the professional use which it would seem may be made of the oil process. Of the monochrome portraits, we admire extremely those of the Dowager Lady Gifford and Sir Henry Parkes, from negatives by Gabell and H. Walter Barnett respectively.

Of the four in color, we prefer No. 11, a dainty and very attractive portrait of Mlle. Adela Atucha, the same lady who appears in the very charming monochrome portrait, No. 13. No. 10, Mlle. Josephine Atucha, is almost equally good. No. 3 is also a most attractive portrait, but possibly it would be improved by a little stronger coloring in the shoulder wrap. The face and head are perfect, but the picture seems a little weak in the lower part. Mr. Tilney is to be congratulated on his very successful essays in oil printing, and his set of pictures should be valuable to photographers as examples of the way in which a trained artist considers their materials should be employed.

Immediately on the left on entering the room we have the characteristic work of Furley Lewis. We think some of these prints would have gained had they been on a toned instead of a white mount. Several of them show the Furley Lewis mannerism—one might almost say they have been done according to the recognized Lewis formula—but we are glad to see that the portrait of A. H. Blake, M.A., is not one of these. It strikes a somewhat new note as to treatment, and is an eminently happy likeness, giving the characteristic impulsiveness and geniality of the sitter. Another work we specially like is the group portrait of Humphrey and Miles Tomalin. In "Patrick," an otherwise fine study, we dislike the reflected light in the right eye, and we think the portrait of Mrs. Parkinson rather heavy. We must not omit to mention the fine portrait of Dr. C. E. Kenneth Mees, fine as a characterization of Dr. Mees, and fine as a typical Lewis portrait. The sitter looks a trifle self-conscious, but then . . .

Of the mattype work we can say little, except that it is not up to last year's in quality, and that the coloring is distinctly feeble in one or two instances.

Harold Moore's work is good, but

possibly a little too conventional in pose and lighting. A very rich effect is obtained by the use of the carbon transparency backed up with various kinds of paper, and a portrait of a lady, in which the transparency, backed with silk, is quite dainty.

The series of reproductions of work in His Majesty's collections at Windsor and in the Bridgwater collection by Walter Bourke are interesting, technically very sound, and sympathetically produced. We particularly like the color reproduction of the portrait of the Countess of Grammont.

One wall is entirely occupied with the magnificent platinotype enlargements of William Crooke. Commencing from the left-hand side, the fifth and sixth—in each case a portrait of a lady—appeal to us as being works lacking nothing in strength of treatment and full richness of quality, yet essentially feminine and graceful in character. The masterly composition of the Irving portrait compels attention and admiration—no better or sounder piece of work is to be seen either at the Salon or in the pictorial section of the R. P. S., and the contrast between this and some of the puerilities shown at the former show, to which we referred in our notice last week, is very marked. It is in such works as this portrait of the great actor that photography comes into its own.

The display by F. A. Swaine, of New Bond Street, is one which will interest the professional worker, for every type of studio pose and lighting is to be seen. Some of these portraits have been done in the studio, and others are home portraits. Quite a number have a topical interest, as, for instance, those of the Rt. Hon. Herbert Samuel, M.P., and Mrs. Samuel. Some clever color work is shown, among the best being Baby Adler, Mrs. Walsh, and portraits of Miss F. M. Craig and Miss N. Craig. The sketch portraits are interesting, being plantinotype prints from negatives taken with a light background, a suggestion of landscape or interior being worked in afterward on the print with lead pencil.

Fredk. Hollyer shows a group of reproductions of Holbein's work, of which we need only say that it is quite equal to the Hollyer reproduction work we have seen in previous years.

The sincere portrait worker will find much to interest and instruct in this room—a few, a very few, things which will show him what to avoid—and the exhibits, as a whole, should be distinctly stimulating.—*British Journal of Photography.*

## HOW TO PHOTOGRAPH MACHINERY.

THE following practical hints in workshop photography, from the pen of J. H. Crabtree, in *Photo Notes*, cannot help but be useful to those taking machine-shop commissions for the first time.

The photography of machinery has made rapid strides during the last few years, for every type of machine is now submitted to the camera. In many of the largest workshops a staff of photographers is kept in continuous service, and numerous exposures are made every week. Smaller establishments have a good proportion of workmen who practise on machinery more than in portraiture. Even camerists who are devoted to postcard printing are now giving careful attention to the machines and processes in our multitude of industries.

Every beginner in this sphere en-

counters difficulties at first in regard to exposure, plates, and media. Some hints, resulting from several years' practice in this important branch of photography, may, I hope, be of use to others who desire to see more than a merely useful element in a good photograph of machinery. Success may be attained by any amateur who has already studied the rudiments of photography, without much initial waste of plates and paper. The crux of the whole business lies here—we must have good "tools"—good camera, lens, tripod, and plates; and all must be in thorough working order.

A 6½ x 8½ camera is best fitted for the purpose, and we can more easily cut down to 4 x 5 than enlarge a 3¼ x 4¼ to the same or larger dimensions. Examine the bellows with scrupulous care; pinholes make havoc on a plate with twenty to thirty minutes' exposure. Such defects can be detected by taking the camera into strong sunlight, closing the lens, racking out well, removing the focussing screen, covering the head and shoulders with a dense cloth, and looking inside the camera for a few seconds. If there be any leakage it will then show itself, and it can be mended *pro tem.* with a patch of black adhesive tape or plaster.

Having tried various lenses, I now invariably use an anastigmat of 5.6 inches focus. For general purposes this is quite satisfactory. When it is impracticable, owing to the machinery being very near, I attach a supplementary lens in front of the anastigmat and shorten the focus to about four inches. A rising-and-falling front to the camera is absolutely necessary, or many useful trains of wheels will have to be left untouched. A shutter is not material. The exposures, as a rule, are so long that a lens-cap is all-sufficient. The lens is of by far the greatest import; it must be of the best type, or disappointing results will ensue. It should give perfect definition at F. 22. Such apertures as F. 6.5, F. 8, F. 11 with the camera at close quarters will not produce sufficient depth of field to define clearly all parts of a machine.

Plates of extra rapidity give much better results than slow plates, notwithstanding the extra exposure allowed for the latter. The slow plates give a hard, unprintable negative, from which important wheels and levers are mere blanks on the printing paper. Backing is, of course, a *sine qua non.* There will generally be bright surfaces to be negotiated, and we cannot always tone these down sufficiently to avoid halation. I have also found that orthochromatic plates yield negatives superior to those on ordinary plates. The reason will be clear when we remember that the prevailing color of machinery, especially when new, is not black and white, but bluish gray. If we expose an ordinary and an ortho plate with three times screen on the same machine, the difference on development will be quite appreciable.

The point of view is a matter worth considering. To turn the lens toward the sun is simply to court failure. We shall get the machine in fair outline —nothing more. It is true that a good choice is sometimes impossible owing to cramped situations; but the very best lighting prevails when diffused sunlight comes over the left or right shoulder during focussing. Direct, unclouded sunshine is fatal to the best work. For even though we may overcome halation from reflecting points, the dense shadows cast by one wheel or lever over another entirely destroy the appearance of the actual structure of the machine. If sunshine is unavoidable, a good diffusing screen of cheesecloth should intercept the light.

Polished surfaces can be "flatted" in tone by dabbing with putty, which

does not harm the machine. In some cases I have had both the black-varnished and the polished portions painted over with a gray mixture made as follows: white lead (*q. s.*) is thinned down with turpentine to the consistency of cream. To this is added a little lampblack to dull the whiteness of the lead, and about one-fourth in bulk of gold-size to render the paint applicable with a soft brush. After exposure of the plates, the paint is washed off with a cloth damped in turpentine.

The letters on machinery—maker's names, addresses and brief directions—are subjects for special treatment. They should show prominently in the finished print. If in *relief* then paint them with the gray mixture before mentioned. If in *intaglio* fill in the recesses with a paste made of whiting.

Just a word as to the tripod. The "usual thing" will not suffice. All limbs should slide; a telescopic pattern is most suitable. At times we must look at high mill-gearing near the ceiling; for this the tripod is stretched at full length, it is then surmounted by a tilting table which enables us to incline the camera as much as 60°. This is of immense advantage. The plate need not, for this purpose, be vertical.

For work near the floor we must have the plate vertical. We cannot, threfore, tilt the camera downward. For this particular situation I attach the camera to the tripod-head and spread out the limbs on the floor in spoke-like fashion. The camera is now within two inches of the floor; it is perfectly rigid, and the plate is vertical.

Between these extremes—the ceiling and the floor—we shall be able to adapt any telescopic tripod.

For development I use pyro-soda, diluted 50 per cent., and add 2 drams per ounce of rodinal. Detail is thus obtained without excessive contrast.

## NEWS AND NOTES.

*Cleaning Rough Paper Prints.* Platinotype, carbon, or bromide prints on rough paper that have become soiled or dirty may be restored to their original brightness as follows: It should be remembered, however, that any "working up" or retouching there may be on the print will probably be removed at the same time: Make a cupful of thin paste with ordinary flour and cold water. Spread this over the surface of the print with a soft brush, and then place it on a sheet of clean glass for five or ten minutes. Then let a spray of cold clean water play upon the print until all the paste is washed away, and it will be found that all dirt, etc., that had collected in the pores of the paper has been removed also.

*Silver Stains on Unvarnished Negatives.*—There are photographers who do not varnish the negatives which they intend to use for printing on paper containing soluble chemicals, as, for example, the usual printing-out papers; hence it not infrequently happens that negatives are injured by silver stains. *Apollo* suggests as a cure for the silver stains that the injured negative should be soaked in a solution composed of potassium bichromate, 1 gram; sodium chloride, 4 grams; and water, 94 c.c. After about twenty minutes' soaking in this solution the image will be almost transformed into a mixture of silver chloride and silver chromate. It is now well washed, soaked in a 1 to 24 solution of ammonium sulphocyanate, and again washed.

By C. F. Townsend, Des Moines, Iowa

By Townsend Studio, Lincoln, Neb.

By C. F Townsend, Des Moines, Iowa

By C. F. Townsend Des Moines, Iowa

By C. F. Townsend, Des Moines, Iowa

1. Woman with Mirror
2. Burne-Jones
3. Passmore Edwards, Philanthropist
4. Self Portrait, 1864

*Illustrating Sidney Allan's Article*

5. Group of Children
6. Lilian
7. Mrs. G. F. Watts
8. General Sir Edw. Sabine

*Illustrating Sidney Allan's Article*

9. Self Portrait, 1880
10. Frederick Leighton
11. Walter Crane
12. Cardinal Manning

*Illustrating Sidney Allan's Article*

# MASTERS IN PORTRAITURE—GEORGE FREDERICK WATTS.

BY SIDNEY ALLAN.

WATTS is known to Americans pre-eminently as the painter of "Sir Galahad"—a young knight in armor in a pensive attitude, with a white horse at his side—and the allegorical figure compositions of "Love and Death" and "Life and Love." He is equally remarkable in portraiture.

In his ideal figure representations he is an innovator. He has no sympathy with the traditional ideal of allegory, with semi-nude females with a sphere or compass in their hands. Although we have learned to associate a certain meaning with these attributes, nothing is really more foreign to us then these platitudes of Greek symbolism. Watts endeavored to introduce a new style of allegory. He invented his own images for every thought he wished to convey. A rather bold undertaking. He failed many a time. His idea is not always clear to us. It seems far-fetched at times, too elaborate and individual for spontaneous apprehension. But he always fought, as every true artist does, for self-expression. Everybody forms for himself an illusion of beauty through which he views the world, and he is most fortunate, as Guy de Maupassant claimed, who approaches most closely to the truth of things as he sees them through his own peculiar illusion.

Watts in all his ambitious figure paintings was a poet and visionary, and often strove to accomplish the impossible. In his portraits he became astonishingly normal. He discarded all extraordinary and dramatic elements. He simply painted *his* conception of each sitter. They were exceptional personages, to be sure, as he would portray no others, but they were done in such a direct and appreciative manner, with such an absolute perfection of technique, suppressing all unnecessary elements, that his best efforts in this direction, as, for instance, his "Burne Jones" and "Cardinal Manning" have to be ranked with the foremost portraits of modern times.

Lenbach, as I have tried to explain in my last paper, considered accessories a necessary evil which he tried to overcome by careless treatment. Watts was inclined to leave it out altogether, and in the majority of his portraits, as Figs. 2, 3, 8, 11, and 12, he succeeded in doing so. And they invariably represent his best work in portraiture.

The "Woman with Mirror," Fig. 1, is a fancy study. It has dignity of pose and a certain breadth of treatment. It is an ideal conception, a woman of some imaginary world. Proud and distinguished, lofty and unapproachable, she glances at the beholder. For ordinary pictorial purposes the composition is entirely too severe. The lines of the arms and the drawing of the hands are particularly beautiful.

The tendency to develop the character briefly and without accessories is shown to the best advantage in the "Burne Jones," Fig. 2. There is nothing but the face, a luminous surface with precisely drawn features and wonderfully expressive eyes. Even the outline of the head and beard are lost in the background, and there is hardly any suggestion of the body (except by color). This only becomes possible by concentrating all light upon the face and showing no decided shadow side. The most fascinating part of this por-

trait is in the eyes. In photography this soulful quality, which seems to reveal the entire personality of the man, is beyond the skill of the operator. The sitter alone could furnish it. The head is exceedingly well placed, just a trifle to the left above the centre. The slightest shift upward or downward, or to the right or left, would have injured the harmonious effect.

The Edwards, Sabine, and Crane portraits are composed on similar lines. No accessories whatever. They show, however, the bust in a more or less distinctive manner. Figs. 3 and 8 seem to be equally successful. The lines of the body are merely indicated, and even the elaborate decorations on Sir Sabine's breast are so skilfully subordinated that there is nothing but the face to look at. In the Crane portrait the treatment is more conventional.

All three have the charm of ocular expression. Watts always made the most of the eyes in his portraits. They reveal the true character of a personality better than any other feature, with the exception, perhaps, of the lines of the mouth. The chin, nose, and forehead emphasize the construction, the cheek the surface qualities of the flesh, but it is left to the eyes and the mouth to bring out the inner life. Study the eyes in these three portraits and judge for yourself.

Also the treatment of the planes of the background deserve special attention. In Fig. 3 the background is darker than the bust. This in a monochrome suggests a light-colored suit. One feels that this man, a philanthropist, does not care to be dressed in sombre black. The rugged outline of the shoulder and arm lend strength to the body. In Fig. 8 we have a semidark background against a dark body. There is a vague shimmer of light in the background to contrast the subdued highlights of the decorations. Fig. 11 is too monotonous in tone. The position of the head would be improved by moving it just a trifle toward the right.

Fig. 5, one of Watts' youthful efforts, is noteworthy for its charm of lines and the careful balancing of light and dark masses. It is an effective example of circular composition.

Of the two self-portraits, I vastly prefer Fig. 9. There is a lapse of sixteen years between the two works, and they show how steadily Watts improved toward the end of his life. Fig. 4 is no doubt a fine character delineation, but the pose is somewhat affected, the outline too precise, and the contrast between the blacks of the figure and the gray background too decided. Nor do the vertical lines in the background particularly help the composition. The head is well placed and the hands are beautiful, although the latter, resting on a portfolio, were merely introduced to suggest the vocation of the sitter. In Fig. 9, in which Watts bears a striking resemblance to Titian, we have a rather restless background, that does not harmonize with the severe simplicity of the figure. Watts used one of his own paintings as a background, and although this may convey to many of his admirers a note of particular interest, it is bad for the composition. The full-face view of the body supporting the profile is excellent in every way. The luminous face with the penetrating gaze is exquisitely balanced by the dark shapes of the pallet, the skull cap, and the dark passage of the painter's working coat. He was very wise in leaving out the hands.

Fig. 7 almost looks like a joke. Strange that Watts never painted a sympathetic likeness of his wife! This is the only attempt in existence. It is said that Mrs. Watts, a sculptress

and authoress of note, had a most attractive face, but that she objected so strenuously to being portrayed in any shape or manner, that her husband gave up the task in despair. If he had destroyed this sketch, surely the world would not have felt its loss. There is nothing to recommend it.

The portrait of "Lilian," Fig. 6, Watts' adopted daughter, has the merit of a simple, unaffected pose. It is rather difficult to depict a young girl holding a basket of flowers in such a natural manner. There is a great danger of trying for some especially graceful pose, which would result in mere prettiness. The face is rather subdued; it is the whole figure which attracts attention in this picture. And this was no doubt the aim of the painter, to reveal the character by the graceful girlish form rather than by the face. The repetition of the shape of the figure by a dark silhouette of foliage in the background lends animation to the simple pose. Without it the lines of figure would be too severe.

The portrait of Frederick Leighton, Fig. 10, is to me the least satisfactory one of those I have discussed today. The face lacks the usual concentration of light, the hands are meaningless; and there are entirely too many disturbing lines and planes and spots in the robe of the President of the Royal Academy to produce the harmonious effect that one expects to see in a masterpiece. The pallet with the brushes helps to balance the angular folds of the sleeves. The more detail there is in a bust, the more varied the background has to be. Those who strive for simple effects must start with a simple treatment of the face. This will necessitate an equally simple treatment of accessories, which in turn will demand the elimination of all details in the background.

The portrait of "Cardinal Manning," Fig. 12, is generally considered as being one of Watts' masterpieces. It is not faultless; there is little characterization in the hands; they look too much like claws and are too dark in tone. The painter was forced to lower their value; displayed against the light lacework they would have attracted too much attention if the painter had rendered them in a higher key. As it is, they help to make the cardinal's official vestment less obtrusive, but lose themselves in beauty of line and expression.

Also in this portrait the head alone is of importance. The attitude of the body is an humble, almost conventional one. The pale, thoughtful countenance against a dark background reveals dignity and power, determination, and a subtle intellect. It is not as keen and analytical a characterization as that of Lenbach's "Pope Leo XIII," but in many ways, notably for its repose, simplicity of treatment, and directness of expression, as remarkable a picture as that of the great German portrait painter. There is nothing to criticise except the hands.

Watts, as we have learned to appreciate, is superior to all portrait painters in the one quality of doing full justice to the human face. His thoughtful composition never strives for mere effect. All unnecessary detail is avoided. Breadth and dignity of pose, that permit none but serious sustained gestures, a keen appreciation of the constructional beauties of the human face, in particular of the eyes and mouth, and an almost clairvoyant conception of the soul life of illustrious personalities are the principal characteristics of Watts portraits. And as they are synonymous in the good portraiture the works of few modern masters will prove as beneficial to the student as the art of George Frederick Watts.

The next article will be devoted to Hubert Herkomer.

## MOUNTS AND MOUNTING.

AMONG the features which distinguish the present-day exhibition of pictorial photography, as compared with what it was, say, twenty years ago, we must certainly include the mounting and framing of the prints. It is a cause for wonderment nowadays when we recall some of the atrocities that were exhibited and presumably accepted without protest by those responsible for the shows of even a dozen years ago.

### *The Red Rand.*

Perhaps it may be necessary to explain to our younger readers that the "red rand" has nothing to do with the "all red route," nor with South Africa. It was the name given to a rectangular design, printed in brilliantly glaring, shouting, screaming red ink on a yellow card, then termed cream Bristol board; the usual printing process of this day being albumin silver paper which was subsequently gold toned to a rich blue violet or purple color. A favorite form of mounting was the *purple* print on a pale *yellow* or dead white mount surrounded by one or more *red* lines about half an inch or so away from the print margins. To give a Victorian finish to this "rand" the ends of the lines were frequently allowed to cross over each other, project about half an inch, and then terminate in a trefoil or some other chaste design.

### *The Oxford Frame.*

Having thus mounted the print—always in the dead centre of the card, the print and mount being rigidly kept to standard sizes—the crown and glory of the procedure was the enclosing of this choice article in one of those curious inventions known as Oxford frames. When one comes to think about the matter, it is difficult to understand why the members of that "antient universitie" did not rise up as one man and make a bonfire in the quad of Christ Church of every "Oxford frame" in existence, and then cap the inventor thereof on the top as a votive offering to those gods and goddesses who are presumed to direct the esthetic taste of the world in general and of Oxford—the home of modern estheticism—in particular.

Fortunately, the red rand died a natural death, but the Oxford frame was a more hardy plant, and had to be excommunicated by the repeated regulation, "Oxford frames not admissible."

### *Extremes.*

Photographers are very prone to swing the pendulum from one side to the other, and so there soon followed the entire abolition of the mount with the introduction of that absurdly heavy frame sometimes made from the roughest of rip-sawn timber. This, in turn, was followed by the return to the plain paper mount with the narrowest of wooden beadings as a frame. Originality sought to advertise itself by the placing of a print generally of about the size of a postcard or less, in one corner of a mount measuring perhaps eighteen by twenty-four inches, thus recalling the Scotchman's saying, "Mickle, puddin, muckle clout."

### *The Multiple or Built-up Mount.*

After this things took a turn for the better, and the mounting of photographs for the first time began to receive thoughtful attention on the part of several writers in the photographic

press. For some unaccountable and apparently groundless reason the employment of two or more pieces of paper of different colors and sizes, one laid on the other, was for a short time known as the "American" system of mounting —but, as a matter of fact, it was known and employed by the exponents of pencil and crayon drawings in this country before photography was a practical picture-making process. Yet it was little used by photographers until some eight or ten years ago.

### *The Frame.*

The primary object of the frame of a picture is to isolate or separate the immediately adjacent portions of the wall on which it is hung. It also is designed to help in preserving the picture from injury. When glass is used in a frame it is put there to protect the print from dust, finger marks, etc. In the early history of painting, drawing, etc., we do not find a mount. The frame had to serve all the purposes which are now divided between the mount and frame.

### *The Mount.*

The fundamental use of a mount is mechanical. The picture may be on paper, canvas, linen, etc., and card, wood, or metal may be used as a support or "mount." If a picture is thus put on a mount larger than the picture and this uncovered portion left visible, we get our present-day idea of a mount—*i. e.*, something which helps to separate the picture from the wall on which it is placed. Thus, essentially the mount is the servant of the picture, and serves a subordinate but useful purpose. This subordination of the mount to the service of the picture is fundamental and must never be lost sight of for a moment, for it is the key of the whole question.

### *Position on the Mount.*

If a print be put quite centrally on the mount, the general impression will be that it is rather nearer the lower than the upper edge. Just as our eye gets accustomed to the lower part of the letter S or figure 8 being larger than the upper part, so we have by long usage got accustomed to the print being placed a little above the centre, and yet regarding it as central. In most cases it will be found best to allow considerably more space below the print than above it, but if this difference be made extreme, then the eye is attracted to this fact, and at once we transgress our fundamental principle of making the mount help and not contend with the picture. A mount should do its work without attracting any attention to itself. A well-mounted and framed picture is like a well-dressed woman. The *tout ensemble* should be quite satisfactory without our attention being drawn to any one part of the costume.

### *Proportions of the Mount.*

If the same print be laid on mounts of various sizes, or if they be of about the same area, but having different proportions of length and breadth, we shall soon discover that the apparent size and the apparent proportions of the print are thus affected, so that the wise choice of a mount certainly includes its size and proportions, and these depend on the feature of the print which we may be desire to augment or subdue.

### *Contrast Effects.*

Similarly, if the same print be laid on various shades of the same color

(preferably gray), and ranging from nearly white to nearly black, the observer will very soon see how vastly different the same print may look when put on a light, a medium, or a dark mount. The light mount makes the lighter part of the print less noticeably light and darkens the darker parts; while a dark mount, conversely, lightens the darker parts and enforces the lighter portions. It may be laid down as a good general rule that black and white, if used at all, should be used very sparingly—*i. e.*, as narrow lines, and only after very careful consideration.

### *Color.*

The color of the mount (using that word to include one or more pieces of mounting paper) should never assert itself as color. This means that the selection of tints employed must not emphasize each other by contrast. For example, a red and green paper would emphasize each other, and thus combined would shout down every excellence in the print. Primary (red, blue, yellow) and secondary colors (orange, green, purple) are scarcely ever available, while the tertiary shades of browns and grays, etc., should have a minimum of color suggestion, unless for some special effect.

### *Repetition.*

Two bands of equal width around a print are scarcely ever acceptable to a cultured eye, nor is it good to have narrow and wide bands following each other in *regular* sequence. Moreover, we have to remember not only to take into account the contrast effect between the mount as a whole on the print, but also to note that the portion of it in immediate contact with the print plays a very important part, and, also, that the various parts of the mount affect each other by contrast effect. For example, a narrow white band around a snow piece will probably kill the sparkling high lights of the snow in the print. A narrow black line alongside a band of gray on the mount will make the gray look somewhat lighter than it really is.

### *Accuracy Essential.*

Doubtless the reader has already noticed that when two lines are only half an inch or less apart, it is easy to see any quite small departure from true parallelism. Therefore, as our surrounding band in this style of mounting is often less than half an inch —often only one-sixtenth, or even less than that—it becomes of first importance to use a true straight-edge, a sharp knife, and cut with accuracy and care. Our own preference is for a knife with a fixed blade like an office knife, a flat steel straight-edge, a "fast cutting" Canadian oil-stone for sharpening, and a piece of hard brown millboard to cut on. This does not blunt the knife nearly so much as a glass or zinc cutting bed.

### *Procedure.*

The print must be trimmed first of all; its opposite edges must be truly parallel, and its angles right angles. (It is worth while to remember that in any true rectangle the diagonals are always equal.) The print is then fixed to the innermost paper by a touch of adhesive at its two top corners only. This paper is now trimmed with its edges truly parallel to the print. It is then in like manner fixed by its two corners to the second paper, which in turn has *its* edges trimmed truly parallel to the edges of the first paper, and so on with any tint which may be employed.

*The Adhesive.*

The paste or adhesive used must not be of such a nature that it will in any way effect the color of the print or stain the paper. The drier it is the less it is likely to induce cockling.

*Fading.*

As some present-day papers are colored by dye stuffs of a fugitive character, the worker must not be surprised to find that his mounting papers change color on exposure to strong sunlight.

*A Caution.*

Just as the small boy with his first pocket knife is consumed with an overmastering desire to try its edge on every bit of furniture in the house, so the photographer is terribly prone to use his newest toning bath for every print, and to display his latest fancy in the matter of multiple mounting. Consequently, there is a very real danger of the beginner running riot, and using far too many different tints in one frame. Moreover, when too many lines and bands surround a print there is a very great danger of the mount becoming assertive—and, what is perhaps still worse, assertive in a "finniking way." For this reason, we counsel our readers to try and get the effect desired in the *simplest manner possible.* Let the beginners limit themselves to two or three shades of paper at most for one mount, until a few months' thoughtful experience has been acquired.

## MOTIVE IN ART.

BY ALEXANDER EDDINGTON.

THE great motive which underlies all art is truth, truth to nature as the painter or sculptor sees it. This truth to nature is present in the scriptural themes of the great Florentines as it is in the revolt of the pre-Raphaelites, in the Parthenon marbles, and the "Butcher's Shop" of Rembrandt, in the gorgeous canvases of the Venetians or the dainty fans of Hokusai, in the piquant satires of Goya or in the nobler masterpieces of his compatriots Velasquez or Murillo, in the glowing pastorals of Watteau and Monticelli or in those marvellous drawings of the peasant painter Millet, which carry us back to the simplicity of an older world. In great part, art consists in presenting the beautiful, but it is a false conception of art to think that it must concern itself merely with what appeals to the esthetic sense. We turn from the court beauties of Boucher, masquerading as shepherdesses, to the real tillers of the soil whom Millet painted, and we find that truth is something far above beauty. And when a painter considers it necessary that he should invest his sitters with the Roman toga to give the dignity which he wishes to convey, we recognize that he has become the slave of a convention. It is no detraction from the magnificent portraits of Holbein, Velasquez, or Franz Hals that the sitters were enveloped in buckram, so that the outline of the human figure was something to be guessed at. But while truth is supreme, it would be the reverse of truth to say that the governing motive of all art should simply be the presentation of truth. There are many scenes

and incidents of life which are better never portrayed. The man who, seeing a picture at an exhibition, says, It is finely painted, but I should not like to live with that picture ever beside me, passes on it the sentence that is fatal. And so we come to the position that the technique of a painting is not the be-all and end-all of the artist. To be merely a virtuoso is to be nothing more than a craftsman. As Gerome, the French painter, once said to a pupil, "Painting for the sake of painting is like speaking for the sake of talking; to paint well, one must have something to say."

Now it is just around this "something to say" that a great many of the battles of art have been fought. You will get many artists and art critics to say that a picture is to be judged solely according to the perfection of its lines and curves, and the quality of its color. This is the position commonly defined as "art for art's sake." Many of you had the opportunity last year of seeing the famous Rokeby Venus in the R.S.A. Exhibition. Looking at it in the light of "art for art's sake," that is a superb picture. Velasquez evidently intended to challenge comparision with the famous Venus of Titian, also a reclining figure, and he placed the nude form on a black instead of a white drapery. But if we should wish to see how utterly Velasquez failed in producing a Venus, we have only to compare it with the famous Venus of Milo to understand the commonplace character of the conception. The Rokeby Venus is only a very ordinary Spanish girl. It survives as art because we are compelled to overlook the lapse from the ideal in virtue of the quality of the painting. Were we, then, to accept this *obiter dictum* of "art for art's sake," there would be no place for symbolism, or ethics, or literary expression, or the didactic in any shape or form in pictorial work. And to avoid the appearance of it we should deem it wise, even in our titles, to adhere to such a simple one, for example, as "The Fur Jacket," which Whistler uses for a lovely full-length portrait of a lady. But Whistler was too great to be consistent, and while painting a nocturne in blue—a well-known picture of the Thames—he admitted that he did not do this in order to get a beautiful quality of blue paint, but to express the beauty and mystery of the night. The fact is that art has been too much governed by definitions. Canons have been turned into fetishes, and the situation has only been saved by the advent of men who have burst asunder the bonds by which artists have sought to bind the art of their age. The whole history of art has been a series of progressions by revolt, periodic wars against academies and schools, whose influence instead of being stimulating and energizing has been expressed in the legend writ large, "Thou Shalt Not." And the position which I mean to enunciate is that art can never be so bound by canons as to prevent its association with the facts and philosophies of life. A great picture may inspire a profounder thought than can be conveyed in words, and to argue otherwise is to say in effect that the spoken word is the fullest possible expression of the mind. Yet we all know how often language is utterly incapable of expressing all we think and feel. It is the literary expression or didactic thought in the art work of George Frederick Watts that I ask you to consider tonight under the title, "Motive in Art." In doing so I feel that no apology is needed for bringing such a subject under your consideration, as, though it may lie outside the beaten track of our specific work, the aims and ideals of the greatest artist of the nineteenth century contain a message for us all.

Mr. Eddington proceeded to show to what eminence Watts reached as a por-

trait painter, nearly every great man of his age having sat to him, his skill as a landscapist, the beauty of his Greek conceptions, and the charming way in which he had painted children. His achievements in these diverse fields showed that he might with success have rested his claims on posterity on any one of these different types of artistic work. However, Mr. Watts felt that he had a message to give to the world, and he devoted the greater part of his life to this work. That he attained a great and enduring success there could be no doubt. His pictures were painted to appeal to men of all creeds, his symbolism contained no device of transitory significance. A study of his work opened our mind to a fuller comprehension of the beauty and mystery of nature in her silences and her activities. We saw man not as something separate from but as part of this ever-rejuvenated nature, working toward the high purpose for which he was created, and in that magnificent epic of symbolic thought unfolded to our vision he spoke alike to the intellect and the heart with the power, the certainty, and the directness of a prophet of old. He had lifted art to its old standard, and in some measure beyond it.

## REMBRANDT LIGHTING.

THERE is a certain charm about the lighting in Rembrandt's portrait work that makes him almost the prince of portrait painters. Unfortunately, one must use the qualifying "almost," because Rembrandt is deficient in truth and realism, qualities which are essential parts of portrait painting.

When Titian painted the portraits of his daughter, he painted her as a charming girl, an attractive bride, or a prosperous young matron; but the various portraits depict the same person with her character matured by time. In the same way Velasquez shows us two portraits of Philip of Spain, in the National Gallery: one shows us the careless, indolent young king; the other a man of mature age, who has lost and suffered much, and risen firm and earnest from his sorrows; and yet these portraits are essentially the same individual. But Rembrandt has painted many portraits of himself, and although all these portraits are full of character, most of them depict entirely different individuals, with entirely different individualities; and the various portraits of his wife show the same diversity of likeness.

But his lighting! It is perfect, absolutely perfect; and no other portrait painter has achieved the same perfection. And we photographers could not do better than study, and imitate, and adopt Rembrandt's scheme of lighting in our portrait work.

Place the sitter so that the light comes rather from behind him; in fact, almost photograph the sitter against the light; the effect may be, and sometimes is, quite good—rather theatrical, perhaps, but distinctly attractive. This is the famous "Rembrandt effect" so often achieved by the ambitious amateur and the professional photographic artist. I believe it is much admired by persons of quality.

No, don't do this really. Buy a little twenty-five cent book and study the true portrait lighting of the true Rembrandt. *The Masterpieces of Rembrandt*, published by Stokes (see advertisement) contains sixty excellent half-tone reproductions, forty-two of which are portraits.

Buy this little book and turn to the unfinished portrait of the little Prince of Orange, page 22, and note the exquisite tenderness and softness of the shadows. These shadows would not have been strengthened in the finishing; you can learn that from the other children's portraits in the book. It is a child's face, and the light and shadows must be handled tenderly, for the secret of Rembrandt's lighting is this: he was never academic, he never imitated others, he never imitated himself; each face is a new essay in lighting, so that the lighting may assist in bringing out the character of the face.

The wonderful lighting of the self-portrait, on page 10, shows another aspect of Rembrandt's genius; for here the painter leaves portraiture and attempts an essay on the poetic attribute of the artistc temperament; and although the actual likeness is more like Sarah Bernhardt posing as Rembrandt than it is like the painter himself, the picture is art incarnate in its mysterious and poetic lighting. The next self-portrait, on the opposite page, is an essay on the dignity of art, and this idea is also conveyed by the lighting.

In the "Boy Singing," on page 30, the play of light on the boy's face is itself the theme; and we may well imagine that the painter first saw it accidentally, and, appreciating its beauty, laid himself out to capture it.

This, then, is, I think, the secret of Rembrandt's lighting; and this is, I think, the lesson we should learn from the little twenty-five cent book. The boldness of a strong face is accentuated by bold, strong lighting; the sweetness of a soft, kind face demands diffused light and soft shadows; each face calls for different treatment; each accidentally beautiful and becoming lighting should be noted and assimilated. For every face has its own particular lighting that will bring out its character; and if we realize this, and put it into practice, we shall have adopted the only true Rembrandt lighting. A. J. A.

## INCREASING THE BUSINESS PROFIT.

THE man who conducts a photographic studio and the man engaged in running a dry goods store are in business for the same reason—to make money. It is true that the dry goods man handles mostly what we term "necessities," that the people in his town must purchase, while the photographer deals in what may be called luxuries. In ordinary good times both the necessities and the luxuries find a market with all classes of people; and when the profit is small, owing to the low price or grade of the goods sold, it then becomes necessary, in order to increase profits, to educate your trade into a desire for something better—that sells for a higher price and pays a correspondingly greater profit. When once this desire is created, the higher priced goods are sold as easily or easier than the cheaper ones. The *Quoin Club Key* tells how a dry goods store solved this problem for one of its departments:

"There was a dry goods store in a small Michigan town. Its corset department did a large business in fifty-cent goods. A dollar and a half was the utmost limit. When a woman in that little town paid one-fifty for a pair of corsets she thought she had a costly luxury. But one day a travelling salesman came along, as the story is told, and said there was no reason in the world why this department should not be systematically brought up to the line

in quality and price and annual turnover. He began by giving a properly fitted two dollar and a half corset to the woman clerk at the corset counter. She was a stoutish woman. Her figure improved greatly. Her enthusiasm led her to speak of that two-fifty garment to customers of the better class. Even a town that size has its social leaders. Soon the 'smart set' was wearing two-fifty corsets. In a few months the demand for one-fifty and two-dollar goods was so steady that the old fifty-cent grade was thrown out of the store altogether. Then three-fifty corsets were put in. In a year, out went the dollar line. To-day that store has a good trade in five-dollar corsets, and is working toward custom-made goods and a corset expert."

The illustration may be a homely one, but it is full of meaning. You can educate your trade, can "bring your customer up to the line," if you drill your employees to an appreciation of what it means in added profits. Now it may seem a far cry from corsets to portraits, but the underlying business principle applies equally well in both cases.

With a good clever receptionist such as most of us are fortunate enough to possess, and some good hard thinking in devising a style or two that are a bit different, and backing up the new styles with the best possible work we can turn out, we have more than a fighting chance in educating our trade to the better goods and higher prices.—*Studio Light.*

## THE PRACTICAL SIDE OF TELEPHOTOGRAPHY.*

I THINK I may safely assume that you are all more or less acquainted with the properties of the telephoto lens, which has now been available for some eighteen years, and which may be briefly characterized as a lens having a long equivalent focus with a short back focus, and possessing the additional advantage that with it an infinite range of focal lengths can be obtained by varying the camera extension or the power of the negative element. At the same time it is possible that some of you may not have paid sufficient attention to this remarkable instrument to be aware that it can now be applied with comparative ease and success to a variety of every-day purposes. There is, I fear, no getting over the fact that, until a year or two ago, Telephotography was anything but popular, even among amateurs, to whom one would have supposed it would specially have appealed. I myself attribute this largely to the difficulties which were formerly encountered when the evil part played by internal reflections in telephoto lenses was not properly appreciated. But, whether this impression be right or wrong, it is pleasant to be able to add that Telephotography is now looking up in the public estimation, as it so well deserves to do. I am convinced, too, that only a little more general appreciation is needed to render the telephoto lens an indispensable item in every serious photographer's outfit. As a preliminary to securing that general appreciation, I am sure there could be nothing more effective than a discussion among members of the "Royal" of the many claims of Telephotography to renewed consideration, now that certain stumbling blocks in connection with it have been, or are being, removed. I am, therefore, both very pleased and very proud to have the opportunity of initiating such a discussion by a few

* A paper read before the Royal Photographic Society of Great Britain, by Capt. Owen Wheeler.

remarks on Telephotography from the standpoint of every-day practice, a subject which I have studied with some care for several years past.

I think that when the average photographic worker asks whether a process, or development, or branch in which the use of a special lens is involved is "practical," he wants first of all to know whether it is within his means; secondly, whether it is manageable in the matter of portability; and thirdly, whether the method of working is such that it is within the scope of average skill and experience. Incidentally, of course, he subordinates all these questions to the consideration whether the results are sufficiently good, as well as interesting, to justify a moderate expenditure of money, muscular energy and brain power. I may say at once that I do not consider it necessary here to do more than touch very lightly indeed on the question of expense, practical as that question undoubtedly is. But I may mention, in passing, that anyone who has a good camera and lens and a spare five-pound note can make pretty sure of turning out some excellent telephotographic work. I myself started as a serious telephotographer with a negative attachment—I use it still—which I bought secondhand for half that sum. Since I became a telephotographic crank my expenses have mounted up somewhat; but, if you escape that fate, a limit is soon reached, beyond which no reasonable worker wants to go. Even I have only succeeded in amassing a round dozen or so of negative lenses, and in my ordinary work I do not use more than three or four of them.

We now come to the question of portability. I think I can best deal with this by calling your attention to this little kit which I have brought for your inspection, and which, at any rate, has the merit of combined simplicity and effectiveness. Of course I do not say that this is an ideal telephoto outfit. Far from it. I have two other kits, one for whole-plate, the other for half-plate work, which I greatly prefer to use if only I can get someone else to carry them for me. In each of these cases the camera is of the good old square form type which I always recommend to workers who are, say, two-thirds of my age and waist measurement. But for a middle-aged man who has to carry all his traps himself, and wants to get over a good deal of ground, I suggest that something of the sort here shown is fairly practical. I need hardly add that nothing in the nature of a "sealed pattern" is intended. Some workers may prefer, or be in possession of another type of camera. The telemount is one which I happened to have by me when I started putting the kit together; and lenses are always a matter of individual preference. But, speaking generally, it is a sound little outfit, with which, as you will presently have an opportunity of judging, a good deal of useful work can be done. As shown here it is complete save for the slides and focussing cloth, but there are one or two minor improvements which I hope still to effect, and there are doubtless several more which will occur to interested members of my audience.

I think you will all agree with me that from the standpoint of portability, telephotography need not offer any very serious obstacle to the moderately enthusiastic worker. Let us now pass to working methods. The trouble in regard to these is connected usually with either the arrangement of the magnification, the focussing, or the exposure. Now, if you have only one negative lens, you can only alter your magnification in one way, namely, by increasing or decreasing your camera extension. The rule is that to obtain

a given enlargement you multiply the focus of the negative lens by the number of the magnifications less one, and the result gives you the necessary camera extension. Thus, if you have a negative attachment of 2-inch focus, and want to get an image six times the size of the image produced by the positive lens alone—no matter what the focal length of that positive may be—you multiply the 2 inches by 6—1 and extend your camera to 10 inches. In doing so you must, of course, take into consideration any portion of the tele-mount which projects into the interior of the camera, adding an inch, an inch and one-half, or two inches, as the case may be, to the extension.

This is fairly simple, but it has drawbacks. In the first place, if your negative element happens to be of some odd focal length, such as two and five-sixteenths inches, and you are not a ready arithmetician, the calculation of the camera extension is apt to become teasing. Secondly, the possession of only a single negative lens involves a necessary compromise. The circle of illumination has to be considered, and, as this circle becomes smaller as the focal length and diameter of the negative lens are decreased, you must make your choice between a very small range of low magnifications, or a larger range of higher magnifications with no possibility of getting a full-sized picture at any less enlargement. For instance, if you have a camera, the extreme clear extension of which is 15 inches, and your negative lens is of 3-inch focus, you cannot get more than six magnifications with it. If, on the other hand, your negative lens is of 1¾-inch focus, you can work up to about 9½ magnifications, but at four or five magnifications, even a 5 x 4 plate will be pretty deeply "vignetted."

In my own practice I avoid all this by working at one or two camera extensions only, and by using several negative lenses to obtain different magnifications. It is not really an extravagant method, as, if you get the right sort of tele-mount, with, if necessary, an extension tube, you can get tele-negatives of different focal lengths adapted at no great cost. In connection with the little outfit I have just shown you I commonly use four tele-negatives, having focal lengths 2¾ inches, 2¼ inches, 1¾ inches, and 1⅛ inches respectively. The single extension of the camera, allowing for the projection of the tele-mount into the interior, is 7½ inches, the double extension 11½ inches, and the full extension with front swung forward—which I seldom use—15 inches.

Now it is a very simple thing to construct a little table showing what magnifications can be obtained at one or other extension, and a glance at the table enables the right negative for any given magnification to be selected in an instant. The actual practicable range with the four tele-negatives I have mentioned and this particular camera is from about 3¾ to a little over fourteen magnifications. If a focal plane shutter is used on the camera, about fifteen magnifications can be obtained, and by using a combined negative lens of extremely short focus, I work sometimes, as you will see presently, up to seventeen magnifications with this small and portable outfit. But I do not recommend such extremes to the every-day worker.

Now, as to focussing. As a matter of fact, I think that the use of a long hood greatly facilitates focussing, which I never find at all a difficult process in decent weather at any but very high magnifications. The three requirements are a good big focussing cloth which is really opaque, a strong focussing magnifier, and, of course, a fine-grain focussing screen. Some prefer to cement a microscopic cover glass to the latter with Canada balsam, thus leaving a

clear spot, but I find it answers my purpose to anoint the ground glass with a little lanolin, which is then rubbed off. In focussing at high magnifications the great thing is patience. Sometimes it takes several minutes before one can see anything at all, and the suddenness with which perhaps a branch starts out against the sky is at times almost surprising.

About exposure I have only to say that, in spite of recent strong representations to the contrary, I believe the old rule, namely, of multiplying what would be the exposure with the positive lens only by the square of the magnifications, to be substantially correct. For a time I doubted the soundness of this method at the higher magnifications, but I am coming round to the view that the rule is accurate all through. I make no strong assertion to that effect, as I have not concluded a set of experiments which I have entered upon in the hope of settling this vexed question once and for all. But I do not feel inclined as yet to depart from a system which I have found to give equal density when negatives of the same subject at four, eight, and sixteen magnifications have been developed simultaneously, and for an equal time, in the same dilute developer.

In any case, whatever rule may ultimately be adopted, it can hardly be hoped that exposure in telephotography will ever be a very simple business. The trouble, of course, is that, as a subject is brought nearer and nearer by the telephoto lens, it sometimes changes in character, and what is originally—that is, when rendered by the positive lens only—a distant view may become at a moderately high magnification a building with a strong foreground requiring a much longer exposure. Still, with all this, the matter of exposure in telephotography is not nearly so difficult as is generally supposed. One soon begins instinctively to be guided to some extent by the appearance of the image on the focussing screen, and the use of a long hood certainly tends to increased latitude by rendering the process of development quite normal.

While on the subject of exposure, I may be permitted to make a brief reference to Instantaneous Telephotography and to the use of orthochromatic screens and plates. Taking the latter first, little need be said on this point except, perhaps, to point out the great value of a screen for cutting out the haze which often is the greatest stumbling-block of the telephotographer. Heat-haze cannot, I think, be cut out by any means, and when the atmosphere is in the condition known as "boiling" the telephoto worker may as well stay at home. But in the every-day light haze which is so characteristic of British weather it is astonishing what a difference a 6-times screen will make in the rendering of a telephoto subject.

Instantaneous Telephotography is a branch in itself, and by no means an easy branch, and I shall only deal with it in passing tonight. When the simple fact is taken into consideration that the aperture of a telephoto system is the aperture of the positive lens multiplied by the number of the magnifications, it becomes evident that instantaneous telephotography must, as a rule, be limited to four or five magnifications, and is then only possible when a positive lens of large aperture is used. Personally I am not in favor of employing a lens of extremely large aperture as a telepositive, except for natural history work, because, if the combination is used at full aperture, there is little or no depth of focus. There is not much even when one's positive has an aperture of $f/5.6$, and the magnification is four or five diameters. The new Zeiss combination, in which an uncorrected

single positive working at $f/3$ is combined with a specially corrected negative, is admirable for certain special purposes, but has the disadvantage that it can only be used at one unalterable focal length. In my own experiments I am using an 8½-inch anastigmat working at $f/5.6$ as positive, in combination with a 3-inch negative, and with this on a 5 x 4 Reflex I hope in time to get some far better results than the one or two which I shall have the pleasure of showing you presently.

I will now exhibit a few slides for which I must crave your indulgence. I had hoped to be able to make a special set for this evening, but the weather of late has been unfavourable, and I have been a good deal preoccupied. You will, I am sure, take into consideration the elementary fact that, as it is impossible to get from a telephoto combination quite the same definition as is obtainable from a first-class anastigmat, telephoto lantern slides of fair quality are not easy to obtain. With regard to the method of exhibition, I have in some cases, as you will see, attempted to show both the view taken with the positive only and the telephotograph on the same slide. But latterly I have discarded this plan in favor of separate slides which do not, perhaps, afford such a striking contrast, but give, I think, on the whole a fairer representation of the results actually achieved.

After this very homely exhibition of every-day work with the telephoto lens by a man not overburdened with leisure, whose opportunities in the way of subjects are rather restricted, I need only detain you for a few more minutes. Doubtless I have disappointed you, but at least I have tried to be practical, and, as I said before, Telephotography only needs to be placed on a more practical footing to become a very great and growing development. I am sanguine enough to believe that the day is not far distant when not a warship, not an ariship, will go forth without its telephoto equipment; when every engineer, architect, and builder will look to the telephoto lens to supply him with hitherto unattainable records of his work; when every explorer will be a trained telephotographer; and when the press artist will telephoto his prey from a distance of a hundred yards instead of thrusting this camera into the poor man's or—what is worse—the poor lady's face. Sooner or later that time will come, and with it a fuller appreciation of the work of the pioneers of Telephotography in this country, of Dallmeyer, the inventor of the telephoto lens, of Mr. Ernest Marriage, Mr. John Gear, and others who were taking telephotographs before I invested my two pounds ten in my first secondhand negative attachment. But I fear that all this adequate recognition of Telephotography will have one result a little detrimental to myself. For certainly in a year or two you will all smile—those who do not feel positively annoyed—at the thought that even a "Royal" audience allowed itself to be bored by such a humdrum and elementary discourse as that which I have inflicted on you this evening.

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*Local Retardation in Development. Die Photographische Industrie* emphasizes the value of a local retarder or retarding pencil, made by plugging one end of a glass tube with cotton wool or similar material, the plug being allowed to project slightly. The tube is now filled with a 10 per cent. solution of potassium bromide, and the mop-like end, saturated with potassium bromide, is worked brush-fashion on the coated surface of the plate while in the developer.

## ACETONE BISULPHITE.

THE use of acetone bisulphite in the "aromatic" and "phenol" developers, such as eikonogen, glycin, and all the others, is not so general as its importance would warrant.

For a number of reasons it is preferable to sodium sulphite, not the least among which is its cheapness; only one-eighth of the quantity is required of "acetone sulphite" if it be used in place of the sodium salt.

Solutions containing up to 50 per cent. of the organic salt will keep excellently, and if concentrated solutions of the commercial developers be diluted with a 2 per cent. solution of acetone sulphite instead of water, they will be found to last longer and be far more active.

A beautiful etching-like tone may be produced on bromide paper by giving an exposure ten times as long as normally necessary and then developing with a solution in which the sodium sulphite is replaced by one-eighth of its weight of acetone bisulphite.

If it be added to a ready-made normal developer, it will act as a restrainer.

| | |
|---|---|
| Edinol . . . . . | 4 drams. |
| Water (distilled) . . . . . | 8½ ounces. |
| Acetone bisulphite . . . . . | 1 dram. |

This is a useful formula if working with a slow shutter on rapid plates in a bright light. By means of such a solution as this, if a plate has been hopelessly overexposed, it may be developed to give a negative, to all appearances, properly exposed.

The addition of a little of the acetone salt to the hypo keeps the fixing bath clear and fresh for a long time.

Perhaps the chemist may not have acetone bisulphite in stock, in which case it may be easily made by anyone having, as most photographers have nowadays, a little chemical apparatus and the skill to put it together.

First, make a strong solution of potassium metabisulphite in water, and set the bottle containing it in a bowl of cold water or ice. Fit a small flask with a cork and glass tube, which must dip well below the surface of the bisulphite solution in the bottle. No rubber joints may be used, nor is the rubber cork permissible, on account of the action acetone has upon it. Half fill the flask with acetone, and dip it into a saucepan of boiling water. The acetone will quickly evaporate and the gas pass into the bisulphite, where, after a few minutes, white crystals will be seen forming. When at last no more are thrown down, the liquid may be drained off and the crystals of acetone bisulphite dried between sheets of blotting-paper under slight pressure (pass them through the mangle, for instance). In this condition it will keep indefinitely. A warning must be given in conclusion, and that is, have no light near, as acetone vapor is highly inflammable.

## LARGE FLASHLIGHT WORK—SOME WARNINGS AND LESSONS.

[WITH the flashlight season in full swing, the following useful points and warnings, given by Harold Hood in the *British Journal of Photography*, will repay a careful reading.—ED. W. P.M.]

Judging by the frequency with which the subject of the application of flashlight work to commercial purposes is referred to in the *Journal*, it should not come amiss to add some practical

data based on two or three lively experiences of my own. I have, as a rule, the strongest prejudice against using and recommending so-called proprietary mixtures. The success of so many of the made-up developers, for example, seems to be based on the sublime faith placed by a certain sort of amateurs in any developer except those of which they know the composition, and that is the sort of spirit to be deprecated among professional photographers. My prejudice extends also to flashlight mixtures and torches made and sold under fancy names. The origin of my objection is perhaps based on the relatively higher cost of the "patent" flashes compared with those I make myself.

Yet—let me emphasize this important point by a new paragraph—I will say this for the improved powders, such as the "Agfa," that their use is vastly to be preferred until the operator becomes so conversant with flashlight procedure that he can with confidence tackle the firing of fairly large charges for comparatively big events. These improved powders differ materially from the chlorate-magnesium one, with which all my larger work, of the type described later herein, had been done, in that they are supplied to work at something less than explosion speed, and with proportionately greater safety. Indeed, it should be borne in mind that my own experiences here recorded are more intended as a warning than as an example, and I hasten to express my conviction that carefully mixed home-made powders, even chlorate mixtures, —fired in extended trains, *and never in heaped mass*, are next door to fool-proof. But—this is important—a milder and safer mixture than one with chlorate is one composed of three parts nitrate of potassium to two parts of magnesium, and this is strongly to be recommended from satisfactory experience. Because the energy of flash-mixtures appears cumulative—that is, that large charges seem to develop more proportionate force than small ones—the precaution to extend the train longer as the charge grows bigger is worth remembering.

Flashlight work of the lesser magnitude had always some fascination, even in the photographic tooth-cutting days. Yet it was not without some inward excitement that I accepted the invitation of the Committee of the Middlesbrough Musical Festival, 1903, to take a group of the combined orchestra and chorus during the final rehearsal in the Middlesbrough Town Hall. I had undertaken nothing approaching this in magnitude previously, and knew of no handbook on the subject; consequently, I judged it best to minimize the chances of personal discredit by rehearsing operations on the night before the event. For *my* rehearsal I got a few friends to stand about in the main positions on the platform. Twelve ounces of the flash mixture—simply 8 ounces of dried and pulverized potassium chlorate and 4 oz. powdered magnesium, brought in separate bags, and mixed with cardboard spatulas at the hall—were placed in a specially made dish, rather like a big dripping tin. This tin was placed at the front and the extreme right of the highest gallery, which projects perhaps one-third into the main hall. The camera, 15 x 12, with Cooke lens, stopped to $f/8$, was placed in the front of the balcony (or lower gallery) slightly to left of its centre.

From subsequent observations, it had seemed inexplicable why the explosive force of this 12 ounces of mixture should seem so much milder than one-half or one-quarter the amount fired in other places. The explanation seems to be that it depends not only on the charge, but also on the size of the building and the degree to which it may be sealed up by closed doors and windows.

The state of the powder, too, is of importance. In one notable instance, to which I will refer later—in which a large group was taken by flashlight in a glass-roofed "Winter Garden"—I carefully dried the chlorate, before mixing, over a stove, and it had probably barely cooled before using. The results of that comparatively small charge are detailed farther on, and will probably influence readers to pulverize gently, but not to warm the chlorate of potassium.

The powder was piled in a loose cone mound in the large dish, which rested on a thick board on the broad gallery ledge. The charge was fired by the rather crude way of a taper, whose brass holder was fitted to the end of a pole about 15 feet long. Nothing untoward occurred, except that it was found rather difficult to hit the mound steadily with the taper flame, because of the "wobble" of the too flexible pole. The powder "went off" with a sharp thud, in a way not easy to describe.

Development of the test exposure was effected by weak pyro potassium, the formula being simply:

| | |
|---|---|
| 10 per cent. soda sulphite solution . | 2 ounces. |
| 10 per cent. potassium carbonate solution . . . . . | 2 ounces. |
| Pyro, dry . . . . . | 2 grains. |

No restrainer was used.

The actual plate used for the test exposure I cannot remember, but it was somebody's "special rapid," and I found the image come up in a rather unsatisfactory weak way, but in the meantime I had obtained some 15 x 12 "Monarchs" from Ilford, Ltd., which had only been introduced a little before that time.

That the work was serious enough will be gathered from the fact that Middlesbrough Town Hall is roughly 130 feet long by 60 feet wide and 60 feet high, and the members of chorus and orchestra and those in front of the platform numbered about 375. To minimize the chances of fiasco, I used two of my own cameras, and borrowed a third; and that is a precaution I should very strongly urge on a professional undertaking any such work of public prominence. Any suspicion of failure in connection with such an undertaking is likely to prove a bad advertisement for the photographer; while, on the contrary, actual experience shows that the successful production of a large, reasonably well-lighted group is a profit in itself, and an excellent advertisement to boot.

On the proper night, with my battery of cameras, and with arrangements as to position, etc., as before, I stopped to *f*/11, and used exactly double the flash-powder, relying on the much higher H. and D. number of the "Monarch" plates for an increase in detail. I fired the charge personally from the gallery, an alert assistant in the balcony below removing the cap on my shouting in stentorian tones: "Now—please look at the cameras, not at me!" (I don't know what "stentorian" means precisely, but it seems to explain the quality—a superfluously loud, clear shout.) A moment later I plunged my flaming taper into the large and distinctly formidable heap of gray powder, and—the flame was completely extinguished.

That all the members of the group had not obeyed orders, but must have noticed the light that failed, was shown by the loud titter which followed. As I feared an actinic effect might be felt from the arc lamps, which were burning high up, I called loudly: "Keep quite still, please"—and a very few seconds later successfully fired the charge. The concussion—not to say explosion—which followed was distinctly awe-inspiring and unlooked for, in view of the mild

behavior of the half quantity of the previous night; and the experience goes far to prove what an extremely dangerous element flashlight mixtures might be in the hands of an incautious or indifferent operator. The heat generated in that momentary explosion was remarkable, in that the whole length of taper was instantly consumed throughout within its brass fitting, and the tinning of the dish blasted away clear down to the iron. The finished result of this group, if not a complete success, was nevertheless very satisfactory. Out of the large company not more than six or seven persons had moved seriously between the two attempts at firing, and the arc lamps did not do nearly the harm I had expected. The lighting was more natural than usual, and the exposure ample.

The lesson from the miss-fire is that one must "tickle" the powder with the lit taper rather than plunge it in overhead. An improvement in detail is to place a small charge of gunpowder—2 or 3 drachms—beneath and slightly beyond the edge of the flash-powder. But I have other and more important improvements to suggest in due order.

About three years later, I was asked to photograph a big group in the People's Winter Garden in the same town, and gained a little local notoriety by undertaking the work, or, rather, by the consequences involved. The Winter Garden is a long, rather low, glass-roofed building, perhaps 80 feet by 40 or 50 feet, and I admit a certain amount of reluctance in tackling this job, because of the difficulty of combining a charge sufficiently actinic and yet with a minimum of concussive force.

Yet, as my clients pressed for despatch, I had no choice but to make the best out of the conditions. I used a total of 6 ounces of the same mixture as above spread in a ridge across the bottom of a large enamelled basin. This I fired electrically, and the manner of accomplishing this should be of interest. Part of the flash-mixture was made to overlap a small train of gunpowder, and this in turn intermingled with a tuft of cotton wool lightly soaked in spirit. I borrowed a powerful induction coil, of the sort used for mine-firing. This, though very portable—occupying a case about 6 inches square—gave a quite formidable spark of about ½ inch length, with a battery of four ordinary household dry-cells, costing about fifty cents each. For use I simply arranged a crude terminal board, with the wires screwed down to approach each other to within about ⅜ inch apart, and the spiritous cotton-wool, with its "tail" merging into the small pile of gunpowder, was arranged closely at about the wire terminals.

There tends to be a rather uncanny suspicion in the imaginative worker that some one is sure to switch the current on while his head is studiously bent over, arranging the cotton or powder. To minimize that, therefore, the operator must face the switch, and previously forbid anyone to approach within two or three yards of it, in the meantime setting some trustworthy person to act as watch-dog.

In the instance of the Winter Garden photograph all went well up to the firing of the flash—but, after, the effect was decidedly exhilarating. There was a report quite amazing in its volume, considering the (comparatively) small charge. No one was hurt, though the crowd had pressed to within uncomfortably small range of the charge. The powder basin was absurdly flattened out, and the steps on which it had stood were flattened to the ground and completely smashed. An assistant quite twenty feet from the flash, who was "managing" one of the cameras, knocked this over, and for a time appeared inextricably mixed up with it. He

excused his clumsiness by saying that the concussion knocked him down. That might be true; yet, though I was nearest the centre of trouble—about eight feet from the flash—*I* felt no inclination to sit down.

Yet, as showing the vagaries and great force of the explosion, it should be recorded that a counter biscuit case standing near had its glass front shattered; a row of crockery, *in another room*, the open door into which was about fifteen feet away, was swept clear off the shelf; at the main entrance, two large fanlight windows fifty-five feet away were blown into the street; and within three minutes of the bang I was asked by a police inspector, accompanied by a constable or two, whether I was aware that there were about 3000 people collected outside in the street—the "flash" having evidently been heard and seen from a wide distance! Oh, an excellent advertisement, but of the sort one would rather pay to avoid!

I believe this extraordinary contretemps was due to the fact that the powder was heaped too much together, and that there was no air outlet open except the chimneys (which, by the way, needed no cleaning for some time afterward). This latter event has its humorous side, but these notes are written with the very serious intention of emphasizing in the strongest possible way, and bringing home to photographers, the very real danger, even to life, in the handling of mixtures of which chlorate of potassium forms a part.

All more recent flashlight exposures I have made without the least approach to explosion by firing in trains more or less elongated, the powder being fired in ordinary five-inch section iron roof-gutters, using the electric spark, firing via cotton wool and spirit. The gutter is fixed to a fairly robust head-rest stand, and is adjustable, so that either six feet or three feet length may be used at will, by simple screwing or unscrewing. Not only is such an arrangement safer, but the lighting is of better quality. A reflecting sheet may be used with good effect, but the fabric of it should have been soaked in 10 per cent. alum, which minimizes the chances of firing. To sum up:

There is no such thing as a "safe" flash powder (the "time" mixtures are excluded, their effect not being a flash proper); real safety lies in the cool, cautious, resourceful operator.

Neither is there a "smokeless" powder; it is always well to point out clearly beforehand that some perfectly harmless white smoke is to be expected, which in confined limits may show a deposit of an equally harmless white powder.

It is always best to use a minimum of powder, the quickest of reliable plates, and the maximum lens aperture the subject will allow. For dinner parties, for instance, the sensible use of the swing-back, or side-swing, may save two-thirds of your powder and a similar proportion of smoke.

Not only be perfectly cool yourself, but see that you employ no assistant whose head is not screwed on the right way. It would be foolish in me to exaggerate flashlight dangers; yet a simple mistake on your helper's part is capable of producing for you an excellent advertisement, the fruits of which a contingency of a sort might quite prevent your enjoying.

Lastly, and most important: Keep well outside the danger zone of all fabrics, curtains particularly.

In these notes there is no intention of discouraging flashlight work, which, normally, involves but the simplest preparation and is profitable enough to warrant the attention of capable photographers as an excellent side line.

## PROFIT AND LOSS.

[THE following interesting paper by Mr. Alva C. Townsend, read before the Nebraska Photographers' Association will repay a careful reading by every professional photographer.—ED. W. P. M.]

In treating the subject assigned me by our president, I feel incompetent, indeed, for its vastness covers more than the experience and observation of any one man.

It is a problem in which we are all interested, whether located in the heart of a great commercial centre or in the smallest hamlet of Nebraska. If we cannot realize a profit from our labors, work soon becomes a drudgery and an unhappy, discontented existence follows. There are, therefore, some fundamental principles which must be applied in every case.

Statistics show that 95 per cent. of all business men meet either partial failure or total loss. I am convinced that this statement is true.

How few men are in business, for instance, in Lincoln today who were the bone and sinew of the commercial Lincoln twenty-five, yes, twenty, years ago? There is a reason for this, and no doubt every business man sometimes attempts to solve the problem and stem the tide that is defeating the vast majority.

No man cares to continue long in a business where profit does not exist. I want to repeat what I have said before from this platform, that the accumulation of a competency for old age is of the most vital importance to practical men, and all lines of progress should be founded on practical principles. Men have and are accumulating profits sufficient to establish homes and provide the luxuries of life for their families out of the photograph business. The man who cannot do this has no right to remain in the profession, for every man is entitled to a competency for his labors. If he fails, in most cases he alone is to blame.

In our profession we find many who merely eke out an existence and live, metaphorically speaking, from hand to mouth. I believe you will agree with me when I say that these are not the men who attend our conventions. Therefore, the conclusion is that attendance at meetings of this kind is profitable financially as well as helpful from the artistic standpoint. The association, one with another, means more to us in the months following than appears during the few days we are together.

Many of us are not successful because we do not possess perseverance and are constantly changing from one location to another. Success does not come in a day, a month, or even a year, and only application and concentration of thought and energy will enable us to possess it. True, a setting hen never gets fat, but she will have more to show for the setting than she would if she changed nests every clear day.

Injudicious advertising enters largely into our failures. Advertise, a necessity, of course, but in a way that will dignify the profession and demand the respect of the appreciative public. Too many of us spend money in a way that is not worth the paper on which the contract is written, and wonder why we do not obtain results. A set of rules for advertising cannot be laid down, for conditions vary, and it is up to the individual to choose well the method best adapted to his locality and then study well the matter used.

We little realize how profitable is the proper care of our display medium. Herein the public judge and judge wisely. Only a suggestion should be

needed on this much discussed subject, and yet look about you and see how shamefully we neglect the words of wisdom offered by every speaker and writer.

We fall far short of the many opportunities of increasing our profits by the failure to grasp the scope of our profession as applied to the desires and, in some measure, the necessities of the common people. I want to call attention to a few that stand out most prominently, and first the duplicate business.

The money lost in this one avenue of trade is appalling if not properly handled. Many men have no system for their negatives, and if able to fill an order it is only after much effort and loss of time. A system should be in vogue in every well-regulated studio which would enable anyone to turn at a moment's notice to the negative. Herein lies the velvet of our earnings and profit.

Reminding customers of the fact that their negative is about to be filed for storage, and a suggestion that it would be well to have additional prints made now, might bring in many a dollar that otherwise would not reach us.

Just a word to sitters who are tardy in ordering does much to hasten the completion of orders. We must not forget our own tendency to procrastinate, as well as our customers, for many of us are very negligent in finishing our orders. Herein is no small item of loss, for the sooner an order is completed the larger the duplicate business and from this order and its influence many follow. I insist that were it possible to complete an order the second day after the sitting, our business would be increased to double its capacity. We see this verified in the methods adopted by the postal card and view men who come into our towns and make pictures of school children and of business blocks. The speculative order is ready for delivery the next day and you know the results. It is through these little things or the lack of them that losses creep in unnoticed.

I have no doubt that many of us have parts of orders in our cases that should have been called for weeks ago, on which perhaps is a balance due. These delayed deliveries should be looked after as zealously as new business, and no apology is needed for sending them to their owners, with a statement of the balance still unpaid. Many a customer thinks because he has made a payment, and perhaps received one portrait, that he is relieved of any further obligation. I would rather have the entire order in the customer's hands than to hold it for a remittance. It is easier to collect the account.

This work naturally requires systematizing and should be under the direction of the receptionist. This brings to our attention the reception room and its management. Too much cannot be said concerning the efficiency in this department, for herein lies one of the secrets of success.

The receptionist in a large degree is mediator between profit and loss. To those of us who are not making money enough, who economically are doing a fair business, but still are not laying aside anything for the future, I would say, "Raise our prices." We may say that we cannot get more, and I will answer, "If such is the case, our work is not worth more." We must make our work worth the advance before we can ask it. When we have achieved this the receptionist must be equal to every occasion; with enthusiasm bring the customer to a realization of the true value of our product.

The first order from a sitting should be only the commencement of a profitable business with a customer. This

is especially true in "child portraiture," where speculative enlargements, water-colors, etc., usually meet with lucrative returns.

I believe it would surprise us to learn what we are losing daily by failing to grasp this opportunity of increasing our business.

We all, no doubt, have moods when we vow we will cut down the number of exposures. Apparently, it would seem that here is an item where economy should be instituted, and yet, after all, if we are judicious, does not a number of proofs in the hands of this ideal receptionist really result in profit rather than loss?

The most natural place to look for loss is in the printing department, and there is no question that in the hands of careless workmen this is true. This being the case, it needs only a passing thought at this time, for we all are aware that if there is a department in the studio that requires thought, care, and skill, it is the printing room. Men who possess the qualities so necessary in the management of this important branch of our business are in demand.

"Economy of time." The ability of making our heads save our heels is a virtue we should all strive to possess, for by this means we will find great profit in saving throughout all the branches of our work.

The men who are ambitious for success are not looking the market over for cheap, inferior goods, but rather are searching for the best that money can procure. It does not always mean addition in profits to purchase an article because of its discount. It does, however, amount to a great deal if every legitimate discount is taken advantage of, and herein lies permanency of business success.

We are engaged in a business we should feel proud of, and by careful study along these business lines not only reap personally a financial standing in the community to which we belong, but assist in maintaining its advanced position in the business world.

## TRADE NOTES.

THERE are many ways to make money in photography, portraiture being only one of them. The eternal quest for something new gives an opening for every kind of novelty. Photographic prints on any other medium than paper will always catch the public eye. Portraits on silk, college and resort souvenirs done on any of the beautifully colored fabrics now so much in vogue, will find a ready sale. John N. Heberger, 196 East Main Street, Rochester, New York, has just put on the market a new process which gives splendid results with great ease and rapidity. Photographers with spare moments would do well to investigate this process—there is plenty of money in its development.

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Now that the short days are with us, the speed of the dry plate becomes a matter of interest. Were speed the only consideration, it would be an easy matter to secure a fast plate. Latitude and gradation, however, are quite as necessary as speed, and the perfect plate must be a triple alliance of the three. The best known triple alliance on this side of the Atlantic is the Seed Twenty-seven. It is well known on the other side too. If you are not using it you owe it to yourself to give it a practical demonstration. It is manufactured by the SEED DRY PLATE COMPANY, and needs no further recommendation.

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COLORED photographs in various mediums are very popular these days on Fifth Avenue, and where the coloring has not been overdone the effect is very charming and seems to meet with public approval. The American School of Art and Photography, 260 Adams Avenue, Scranton, Pennsylvania, is teaching a simplified process that is worth inquiring into. Do not wait until your competitor makes a big color display; see if you cannot make one yourself right now.

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YOU do not buy a pig in a poke when you invest in one of the New Improved Seneca View Cameras. It is sent out on a ten day trial offer, and if you do not feel satisfied that you are going to get your money's worth you can return the camera. The SENECA CAMERA COMPANY relies upon the quality of its goods, and has little to fear from a critical examination of any piece of apparatus that leaves its factory.

# WILSON'S PHOTOGRAPHIC MAGAZINE

A MONTHLY MAGAZINE FOR PRACTICAL PHOTOGRAPHERS

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T. DIXON TENNANT, Editor

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## EDITOR'S TABLE.

THROUGH an oversight on our part in reporting the first Congress of Photography, at Rochester, we omitted to record the name of Mr. Geo. H. Hastings, who was present representing the National Association with other past-presidents. Both in National and New England Associations Mr. Hastings has been for many years an active and tireless worker.

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IN the October number, just issued, *The Photo Miniature* passes the century mark and looks hale and hearty. When our interesting little contemporary was launched, and announced its intention of writing up some one photographic subject in each issue, it was prophesied that there were not more than a dozen photographic subjects that could be interestingly written about to complete the first twelve numbers. Just the same, the hundred and first number makes an interesting little book on "photographic chemicals," and the promise of more to come is as bright as ever.

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WE would urge our readers not to hand over their renewal or subscription to this magazine to any travelling agent or canvasser purporting to represent the magazine. We employ no canvassers. Frequent complaints from various parts of the country indicate that there are men collecting subscriptions who are nothing but plain cheats obtaining money under false pretences. This magazine employs no canvassing agents, and the only safe way to subscribe or renew a subscription is through your dealer or direct to this office.

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MISTAKES will happen, and Jove has been known to nod. In writing of the pictures exhibited at the National Convention at Rochester, we referred to the fine picture made by Thuss Brothers—the picture that won the Diamond Trophy at Winona Lake this year—as a carbon print. This was incorrect. Messrs Thuss inform us that the print exhibited was on Angelo Sepia. We are glad to make this correction, and are not altogether surprised at the mistake. Angelo Sepia is so good that it might readily be mistaken for carbon.

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GOOD advertising means good business, and the best business people make use of the best advertising. From the Strauss Studio, of St. Louis, Missouri, we have just received a handsome booklet, a souvenir of Centennial Week recently celebrated. Tastefully gotten up in a rich brown cover and printed in two colors. It contains, besides the program of the centennial and portraits of the Governor of Missouri, the Mayor of St. Louis, and numerous fine reproductions of Strauss portraiture, a full description with illustrations of the famous Strauss Studio, the whole making a very desirable little book that could not help but create in the mind of the reader a strong and favorable impression of the Strauss Studio. It would certainly cost more than a two by four newspaper advertisement, but whatever its cost it would pay for itself many times over. Good advertising always pays.

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WE have just received the program of the Professional Photographers' Club, of New York, for the coming season. The club has had to move into larger quarters, and the lectures and competition announced bespeak an interesting and instructive session. The social end is well provided for and this club seems destined to become quite a factor in New York photographic matters.

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TENNANT AND WARD, New York, advise us that *Photograms of the Year* 1909, has just been received and is ready for delivery. We are assured that it is a better book than ever, containing more and better pictures. The *American Annual* for 1910, will be ready for delivery about the middle of November. Every photographer needs both these annuals, and should place his order now to prevent disappointment.

"TEDDY"

By Arthur Hammond, New York

# WILSON'S PHOTOGRAPHIC MAGAZINE

FOUNDED IN 1864 BY EDWARD L. WILSON

VOL. XLVI DECEMBER, 1909 No. 636

## THE CONVENTIONS OF 1910.

AFTER a notable achievement there is always a disposition to relax and take things easily. After the notable success of the Rochester Convention there is a danger that the members of the Photographers' Association of America will be inclined to be less interested in the coming Milwaukee meeting.

If the 1910 convention is to be any kind of a success it will need an extra effort on the part of the Association's rank and file. The wonderful success of the Rochester meeting was due, in a great measure, to the great personal popularity of President Frank Barrows and to the choice of Rochester as the meeting place; and photographers, in general, were glad of an opportunity to honor the man and the city.

President-Elect Proctor, representative of the best type of American photography, if supported by the members of the Association, will not be found wanting in all that goes to make an able and popular leader.

It is up to the members of the P. A. of A. whether the 1910 meeting is to be a continuation of the great revival of interest in association affairs as shown at Rochester, or sink into the deadly dulness of the 1907 and 1908 meetings.

In the election of Mr. W. F. Oliver to the Presidency of the New England Association there is hope that this important Association will take its proper place and live up to its proud boast of "Second to the National." Mr. Oliver is young and energetic, a deep thinker on all association affairs, and has some original ideas that, if put into practice, will undoubtedly produce good results. He is making unusual efforts to secure the coöperation of the New England photographers, and with their support something out of the usual can be looked for from the Boston meeting in 1910.

With the National meeting as far west as Milwaukee, the New England convention cannot be hurt by counter-attractions—more especially if the date does not follow immediately on the National.

The first important meeting of the year will be the Photographers' Society of New York, which is held in New York early in April, and for the first time its president will be from one of the "up-State" sections. Following three popular New York City photographers, President Bliss, of Buffalo, will need all the support and assistance he can get to keep this Society up to its high

standard of usefulness and popularity.

The Pennsylvania Society, founded on the same lines as the New York Society, has not met with the same success in its short career. President Rau has a well-known reputation for being a first-class business man, and we look to him to put the P. P. S. of Penna. into better shape.

If every member of a State or the National Association would take some interest in his association beyond the mere paying of his dues, the association idea could be made a very real power in professional photography.

## PHOTOGRAPHERS OF NEW ENGLAND.

*To the Photographers in the New England Field:*

THE Executive Board of the Photographers' Association of New England for 1910 has met. Like the city of Boston, it has made "plans." Like Boston's plans, our plans depend in no slight degree upon the hearty coöperation and support of those whom the plans are designed to benefit. Although we have not lost sight of the 1910 Convention as the main issue, yet we endeavor to make our efforts such as to result in something permanent, to bring about a closer union in the organization, and to place the Association upon a broader basis.

Plan 1 will soon be consummated so far as possible as it will maintain throughout our official year. We intend by direct communication with every professional photographer within our field to keep them fully informed in regard to our plans and endeavors as rapidly as they are formulated. By a response to our communications we hope to be made aware of the desires of our members and all who are made to see that it is wisdom to become members.

We propose to eliminate uncertainty. The office of the Secretary is to be placed and conducted upon an up-to-date business basis, both mechanically and methodically. We have secured the most complete list of photographers we could obtain. Our first communication is for the purpose of verification, and we earnestly request any photographer in our territory who fails to receive our literature to immediately notify our Secretary, Mr. George H. Hastings, Haverhill, Mass. Once your name is upon the list you are absolutely assured of every communication—and they will be numerous.

I would emphasize the fact that our list is classified, and it rests with you where your name stands with reference to organized effort in New England. We trust there may be numerous additions to the "membership" class.

I would emphasize the fact that our financial standing is such as to make our success contingent upon nothing but such support from individuals as we are entitled to expect.

Make sure you are on the list in season to learn about plan 2.

W. F. OLIVER,
Pres. P. A. of New England.

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*Tests for Hypo in Wash Water.* Permanganate of potash, 3 gr.; caustic soda, 15 gr.; water, 16 oz. An ounce or so of the water to be tested is mixed with a few drops of this solution. If hypo is present, the red color will change to green. *Or*, boil a pinch of starch in distilled water. Cool, and add a drop or two of iodine solution in alcohol, when a deep-blue color is produced. Add a drop or two of this blue liquid to 10 oz. or so of the wash water, when, if hypo is present, the blue color will at once vanish.

# QUALITY IN BROMIDE PRINTS.*

ANYONE who has once mastered the carbon process, and who has experienced the wonderful quality that that process gives, is apt to sigh for some means of producing large prints without losing this quality. When, however, he tries to enlarge on to bromide paper, he is woefully disappointed with the loss of quality which usually results. In order to overcome this loss of quality, it is necessary to study the bromide process very carefully to ascertain the causes for it.

It is quite possible, I think, to obtain just the same quality as in the carbon process, but few obtain it. The power of producing enlarged pictures is really, to my mind, the *raison d'être* of bromide paper.

Bromide paper is also elastic in its results and in its contrast, and is easily controlled locally, perhaps not so readily as some other materials, but these entail the making of enlarged negatives, in which even the most skilled amateurs admit they find it difficult to preserve all the quality of thc original negative. Moreover, since the advent of the bromoil process this disability is removed. The bromoil process however, demands a perfect bromide print, and hence this article should indirectly help the latter process.

### *A Common Experience.*

Before going into the causes which produce this lack of quality in bromide paper, I will describe an experience which I think is common to all who have made bromide prints.

Having bought some matt bromide paper, and having made some prints which, after fixing, appear just perfect in the washing water, and after congratulating one's self on the quickness and facility with which they have been produced, they are pinned up to dry. On examining them later when dry, one's feelings are of a different nature, and the process is roundly abused. The prints seem to have lost their life, have become darker and flatter, and one feels inclined to consign them to the dustbin. Drying, then, is one of the causes of lack of quality.

### *Now, What has Happened?*

On careful inspection we notice that the shadows, which were full of gradation when wet, have become blocked up. What I mean by this is that when the print is wet, one particular spot in the shadow portion may be very black, and another spot not quite as black in comparison, but when the print is dry these two portions have levelled up and become uniform, both being dull black in tone. The reason is that the gelatine of the emulsion when wet is somewhat translucent, and this makes it possible to see some of the silver deposit which lies in the deeper layers of the film. On drying, the gelatine becomes more opaque, and the two tones accordingly approximate to one another.

In platinotype, as there is no emulsion, this blocking up of the shadows does not occur to the same extent, and this is why one is able to obtain a more intense black on a smooth matt surface in the platinotype process than can be done with matt bromide paper.

We notice also that after this drying the lighter portions of the print have become very slightly darker. The net result is that the bromide print has lost contrast and become darker.

* A lecture before the Photographic Society of New South Wales by Mr. Norman C. Deck, and reported in the *Australian Photographer*.

*To Prevent Loss of Brilliance.*

The remedy for this loss of brilliancy, when using a smooth matt paper, is to make allowance in making the print, and to give such an exposure that, when the print has been developed to the limit and fixed, it will appear rather too hard and a trifle too light in result, especially if we intend to make a dark print; for it is easily apparent from the above that prints which are intended to be dark will alter more on drying than prints intended to be light.

Now, this loss on drying varies with the paper used, and when a glossy paper is used there is very little loss of brilliancy indeed, because the emulsion is very much more transparent. Also, as it is unnecessary to make the print a little too plucky to allow for the drying, one can use a softer negative; hence for a negative slightly on the soft side a glossy paper is preferable. The surface of a glossy paper, however, is conspicuous except when framed behind glass, and so between these two extremes we have the half matt or carbon surface papers which have become so popular of late.

These papers lose little brilliance on drying, and are a great boon indeed. The surface approximates carbon more or less, some papers being a little more glossy and some a little more matt. Even with these papers in dark pictures there will be a slight flattening, hence it is wise to keep them on the light side. The degree of flattening given by these papers is now comparable to that of platinotype paper, and one can get as intense a black as in platinotype, and not the dull black given by the dead matt papers.

*Steaming the Prints.*

Some platino-matt bromide papers will exhibit this carbon surface if steamed over the spout of a boiling kettle when dry, as suggested by Mr. J. M. Sellors in the *American Annual of Photography*. I think bromide workers are very much indebted to Mr. Sellors for the idea. Only papers with a slight grain should be thus treated; smooth matt papers are not pleasing when steamed.

Loss of quality may also be due to the use of a negative unsuited in contrast for the process. This cause, however, is common, more or less, to all printing processes. But the bromide process scores in that it is easy to increase or decrease contrast to compensate for the negative, as will be described later. For contact printing or enlarging by daylight on bromide paper the negative should be decidedly plucky; in fact, such a negative as is required for the platinotype process and for carbon paper sensitized in the Bennett citrate bath. For enlarging by artificial light (such as the Welsbach burner) the negative should be thin and very soft; in fact, just such a negative as is required for Seltona or a soft gaslight paper.

When such a negative is used, the best result is obtained by giving the correct exposure and developing the paper to the limit and fixing. If the exposure is too great, on development to the limit, the print will be too dark on fixing; but if too short, in both cases the print will be too light when fixed, provided that the negative is of the right amount of contrast. Underexposure will not produce a contrasty result, as is sometimes stated.

We see, then, that there is one, and one only, correct exposure which will faithfully reproduce the gradations of the negative. Overexposure and short development with normal developer is a very common cause of loss of quality, producing flatness; but if the plan of developing the test strip to the limit and judging the exposure from its density in the fixing bath be adopted, this cause will be eliminated.

I find amidol a very convenient developper, as it gives an image very favorable for toning. I make the solution fairly strong, so that complete development does not take more than one minute, as I find that if it takes two or three minutes one is apt to become impatient, and take the print out before development is complete, to its detriment. In summer I use amidol, 8 grains; anhydrous sodium sulphite, 40 grains; water, 4 ounces; to which I add 2 minims of 10 per cent. potassium bromide. In winter I use double this strength to compensate for the cold.

*Measuring not Weighing the Chemicals.*

I do not keep the sulphite in solution, but measure it out in the following manner: I tip the amidol into a dry minim measure up to the 20 minim mark (this gives me 8 grains of amidol), and without tipping this out I tip in the anhydrous sodium sulphite up to the 80 minim mark (this gives me 40 grains of anhydrous sulphite); both are then tipped into 4 ounces of water, and 2 drops of 10 per cent. potassium bromide added. This is much quicker and easier than weighing, and is quite accurate enough. A Watkins factor of 6 will give complete development. This developer works well on gaslight paper, and has the advantage of always being fresh.

Another cause of loss of quality is that of overworking the developer. It will be noticed, if a number of prints are developed with a limited quantity of developer, that, although the first prints will be good, the succeeding prints will lack quality, and also that if the prints are toned by the sulphide process the first prints will tone to a good sepia, but the last prints will tone to an unpleasant yellow ochre. It should be noted that some of the intermediate prints may look well before toning, but on toning there will be greater loss of quality than one would expect from the appearance of the black and white print. It is better, then, to use a limited quantity of fresh developer for each print, especially when making enlargements. This precaution will insure the certainty of any after-toning process.

It is well to note here that prints that have lost quality through overworking the developer will tone well by the mercuric iodide-sulphide process, or they may be improved by toning in a gold sulphocyanide bath, as used for P.O.P., made very strong.

## POWER OF ORGANIZATION.

THE conventions for the year are over, and while some of them were not up to their usual attendance mark it must be remembered that in many localities business had fallen off. The majority of the conventions, however, were well attended, and when the 1910 convention season opens we expect that the full wave of prosperity will have returned and you'll just have to go to get rid of your surplus cash.

The banks will undoubtedly be so full of money that they won't allow you to make a deposit, and the only thing left will be to invest it in convention knowledge. A good investment, too.

If you don't believe it let us ask you, "Who are our best photographers?" Answer—Photographers who attend conventions or photographers who are convention graduates. There may be a few good photographers who have never attended a convention, but they are the exception to the rule.

In addition to the fact that at a convention you get good technical knowl-

edge upon which to build a successful business, it should be remembered that association work leads to better and bigger things.

Take the New York State Association, for instance, with its local sections, and see what it is doing to promote harmony and progressiveness among its members.

Think of photographers in the same cities and all surrounding territory meeting frequently to discuss their common good, and once a year the entire association meets, when all the sections get together and discuss their common good some more.

Pennsylvania has a similar organization, and both the New York and Pennsylvania Associations are beyond the experimental stage. They are successes because they are truly representative and exist for the good of the members.

We look forward to still another and bigger organization of the same kind when the P. A. of A. and the various State associations work together. When local sections will exist everywhere and will work in unison. One grand and truly National Association.

This movement is already started, and when carried to completion organized photography will be here.

Organization is power and lack of organization is confusion.

You might ask, "What are we going to do with the power we gain by organization?" "Will we influence legislation and compel the public to sit for portraits once a month and pay us $50 a minute for our time?" Nothing like that; at least, it isn't probable.

The real object is to be able to do what you as a body decide to do. To know that any action taken to meet existing conditions will be a widespread and successful action, because of perfect organization instead of a failure due to the absence of organization.—*Artura Bulletin.*

## DEVELOPERS AND DEVELOPING.

A PERFECT negative depends, naturally, to a great extent, upon the exposure, and, secondly, on correct development. Correct development depends upon a suitable proportion of the ingredients of the developer, its temperature and correct duration of development. The latter factor depends to some extent upon the printing process, or, in other words, upon the character of the negative desired, for naturally what may be correct for one purpose may be incorrect for another.

"Developers are frequently described as 'hard,' 'soft,' 'quick,' or 'slow,' yet it is safe to say that within reasonable limits all developers will act the same. The reasonable limits may, in other words, be defined as duration of development. It cannot, however, be denied that some developers tend to give more foggy results than others, that is, they have a strong tendency to reduce the silver salt not acted upon by light as well as that acted on.

"It is frequently stated that one special form of developer is particularly suited to snapshots—that is to say, it will bring more out of a plate than another developer with a short exposure. This statement is not quite true, as it depends upon the plate, some plates certainly being more rapid with one developer than another; others, on the other hand, are the same speed for all developers.

"Ferrous oxalate developer is not much if at all used for negative work now, not only because it really will not fetch as much out of a plate as others, but because it does not keep well, and because there is great liability to stain through the formation of basic iron salts which cause rusty stains.

The new developers are most in favor, and fashion has decreed that a combination of metol and hydroquinone or metol and pyro should be the favorites. The reason for this is probably with the idea of combining the rapidity of metol with the slower but cleaner working process of hydroquinone. In the case of pyro-metol there is undoubtedly an opinion extant that this is more powerful than all others.

"There are two developers, however, which, I think, are much neglected, and which are well worth more attention, and they are pyrocatechin and glycin—the first for instantaneous work and the latter for all time exposures. The former certainly does not permit of an innumerable number of plates being developed in the same solution, but this is quite a wrong method of working, as the latter developed plates must be less satisfactory because of the increasing quantity of bromide in the developer, which is derived from the plates. Both give very good density, are absolutely clean working, and do not stain the film at all, and both are fairly rapid in action, though pyrocatechin is five times faster than the glycin, though both can be slowed down by dilution with water.

"They have one further advantage too, and that is they can be made up into stock solutions of fairly great strength, and are therefore convenient in the dark room.

"The formula for the pyrocatechin is:

| | |
|---|---|
| Sodium sulphite . . . . . | 5 ounces. |
| Caustic soda . . . . . | 336 grains. |
| Distilled water to . . . . . | 15 ounces. |

Use warm water, and when the salts are dissolved add the following solution:

| | |
|---|---|
| Pyrocatechin . . . . . | 1 ounce. |
| Distilled water to . . . . . | 5 ounces. |

A light brown solution is formed, which should not be filtered, but immediately bottled, and preferably into small bottles, say 4-ounce.

"For use, 1 ounce of the above should be diluted with 9 ounces of water.

"The duration of development will be about three or four minutes.

"The developer is specially advisable for instantaneous and three-color work and portraiture. For landscape work or time exposures generally, I prefer one of the following glycin formulæ:

| | | |
|---|---|---|
| A. | Potassium metabisulphite . . | 1 ounce. |
| | Caustic potash . . . . . | 1 ounce. |
| | Warm distilled water . . . | 2½ ounces. |

When dissolved add:

| | |
|---|---|
| Glycin . . . . . | 312 grains. |

and make the total bulk to measure 3½ ounces, or—

| | | |
|---|---|---|
| B.— | Sodium sulphite . . . . . | 2½ ounces. |
| | Glycin . . . . . | 1 ounce. |
| | Hot distilled water . . . . | 4 ounces. |

as soon as dissolved, add:

| | |
|---|---|
| Potassium carbonate . . . | 5½ ounces. |

"This must be added gradually, as strong effervescence ensues, and it is therefore advisable to use a fairly large measure or vessel to mix it in.

"This does not form a solution, but a thick cream, and the total bulk should measure 7½ ounces.

"This also should be filled into small bottles. This keeps better than the first glycin formula.

"For use, dilute one part of A with fifteen parts of water, and one part of B with 25 parts of water. Development will be complete in both cases in from eight to ten minutes. By diluting one part of B with fifty parts of water, development will take about twenty minutes.

"For stand development the glycin developer, B, is specially suitable, and mixed in the proportion of 1 ounce to 80 ounces of water, development will be complete in an hour."

# REPAIRING CRACKED NEGATIVES WITHOUT STRIPPING.

BY C. L. CHARLES.

So long as glass is used as the support for the sensitive film, photographers will be liable to have broken negatives, either from dropping one by accident or, more often, from putting the negative to print in a frame that has warped or was, possibly, never flat. The advice that is generally given when a valuable nega- ive has broken, provided the film itself is still intact, is to strip the film and put it on a fresh piece of glass. The operation is a very risky one, especially in inexperienced hands, and in my owu practice is only adopted as a last resource. I may add, in explanation of the expression "my own practice," that, although I have been so fortunate as to break very few negatives myself, I have had a good many given to me to print, more or less in the ordinary way of business.

It is well known that if a cracked negative is kept turning round all the time it is being printed, the crack, instead of showing as a broad light line. will only appear in the print as a thin line. This is because the edges of the crack throw a shadow on the printing paper, which is prevented by the rotation from leaving any definite mark. But, however, carefully printing is done, there will still be a very visible mark where the crack is. The method I am about to describe does away with the necessity for rotating the printing frame, and almost, if not quite, prevents the crack from showing at all. Yet there is no stripping.

The agent employed is Canada balsam. This, as bought, is generally about the consistency of molasses, and should be clear and of a pale yellow color. The longer it is kept, the less fluid it becomes, and at the same time a slight cloudiness often to be seen in new balsam clears off. As the balsam when very fluid takes a long time to harden, it is best to "age" it as quickly as possible. For this purpose it may be poured out into a shallow vessel (I used the lid of a biscuit tin) and exposed to light and air for a few days, in a place where it will not be likely to collect dust (or insects). When fairly hard, it is scraped off the tin with an old knife, and made fluid for use by the addition of some volatile solvent. Chloroform is generally employed for this purpose, and is what I use; but I am informed that gasoline answers very well. The solution should be about as fluid as golden syrup. Such a mixture may be kept for any length of time in a well-corked bottle, which may contain a bone salt spoon, with which to remove the balsam. Now, as to its use.

Anyone who takes a very fine glass tube and inserts one end in water cannot fail to notice that the water rises in the tube above its level in the outer vessel. The cause of this action is called capillary attraction, and by virtue of it fluids "creep," without being forced by external pressure, into narrow orfices. We rely on this to get the balsam into a crack in a negative.

We commence by taking a flat piece of glass or wood, and the negative, film downwards, is supported on this by its edges. Four coins may be used to support it, so placed that the sagging of the cracked negative helps to keep the crack closed. Then with the salt spoon, a line of balsam is laid along the crack from end to end (a very little suffices), and without any attempt to work it into the crack the negative on its support is placed in a warm oven (one of which the fire has been out for half an hour or so will do), and is left undisturbed for a night. Next morning the balsam will generally be found quite

filling the crack, which is then practically invisible; but if it does not, as is shown by the appearance of shiny edges of glass along its course, it may be put on one side for the day and left for another night in the gradually cooling oven. Two nights are always sufficient, provided the negative is only cracked and there are not parts of it that have been actually broken away.

In such a condition, the crack has disappeared, but the least undue pressure on the negative may open it. There are two courses open to prevent this, and the one I will first describe is that which I prefer, although it is a little more trouble. It should always be adopted with negatives that the photographer wishes to preserve after getting one or two prints from them.

A pool of the balsam—for a quarter-plate it should be about the size of a half dollar—is put in the middle of the glass side of the negative, after the crack has been sealed up in the way just described, and while the negative is still resting on its supports. After the lapse of a minute or two, if there are any airbells on the balsam, which are very likely to form where the fresh lot of balsam meets that which was put on the crack, they are got rid of by touching them with the point of a needle made hot in a spirit lamp or Bunsen burner. A perfectly clean piece of glass the same size as the negative is then gently lowered down so that without any need to slide it about it covers the negative fairly exactly. The arrangement is then put into a warm oven (not hot) for a few minutes, watching it to see if any of the balsam squeezes out. If any does, or, if not, as soon as the glasses are warmed right through, they may be taken out and the top one very gently pressed, in the middle of it, so that as the balsam squeezes out it pushes any airbells in front of it. As soon as the balsam approaches the edges the negative and the adhering glass plate may be taken off the coins and turned over, so as to bring the film of the negative uppermost. This is done to prevent any of the balsam, as it squeezes out, from getting on the film of the plate. Putting the glass down on the warm support, and placing a clean piece of paper on the film of the negative, a continuance of the pressure for a little while longer will drive some of the balsam out at the edges, and the union of the two glass surfaces should then be perfect and complete.

At this stage I usually return them to the oven, leaving them in all night under slight pressure. Nothing is better for supporting and pressing than a packet of spoiled plates. For quarter-plates, I support them on a little parcel of a dozen lantern plate glasses, and put another similar packet on the top. Being a little smaller than the negative, the balsam does not get on to the weights. The next day the balsam will be hard enough for the negative to be handled freely, and the surplus balsam may be cleaned off with a clean rag and a little ether. The edges should be bound with lantern slide binders, and the repaired negative is finished, and should last as long and be as efficient as if it had never been cracked. Should the negative only be required for a single print or so, it saves time and trouble, but does not make so good a job of things, to put it flat down on a clean surface, and then, bringing as little strain as possible on the crack, to remove the surplus balsam with an old knife and finish the cleaning with ether, as before. The negative is then attached to a piece of plain glass with lantern slide binding strips, and printed in that condition.

My subject has been the repairing of cracked negatives. The method is even more valuable when the negative is actually broken, film and all, because in that case it is the only one that can be adopted to be of any use.

Stripping is no longer possible. To

make the best of such a job a clean piece of glass is taken, and the largest piece of the negative carefully cemented to it in the way already described, but keeping the new glass plate always underneath in such a case. No notice need be taken of the surplus balsam; it is impossible to keep it off the film, and it is no good, therefore, to try to do so. Each piece is cemented in place in succession, building round or away from the first piece until the whole negative is complete. When the balsam is hard, the negative may be cleaned with ether, and its edges bound. It will be necessary to block out with opaque pigment any clear spaces along the cracks and to retouch the prints, so that the marks so made no longer show. It must be very exceptional for a negative to be so valuable as to justify this trouble; but when it is, it is surprising what a good job may be made starting with little more than a heap of broken glass.

## RENDERING EXPRESSIONS BY PHOTOGRAPHY.

Arthur Hammond, who is responsible for the three clever studies of boys reproduced in this issue, made some interesting remarks upon expressions in the *Amateur Photographer* some months ago, under a pen name, that will bear reprinting.

One of the greatest difficulties the portrait photographer has to overcome is, I should think, the management of his sitter's expression. The great charm about portrait work is that there is so much scope for the exercise of personal control.

The operator can arrange the lighting as he likes, he can select such backgrounds and accessories as he thinks best, and has a good deal of control over the posing and arrangement of the subject.

He can even in some cases choose the type of sitter most suitable to carry out his ideas.

In all this he has an advantage over the landscape worker, who cannot, to anything like the same extent, arrange his subject or lighting. He has to rely on his powers of selection in choosing his subject, and has to wait until the most suitable lighting is provided by nature.

In the matter of expression, however, both workers meet upon common ground; the portrait worker has no more control over the expression on the face of his sitter than the landscapist has over the expression on the face of nature.

It is largely a matter of luck; it is impossible to be certain of the result. The difficulty varies with different sitters. With some people it is very hard to get away from the consciousness of the camera, the constrained, worried-looking attempts to "look pleasant," but fortunately one sometimes has the luck to find a sitter who is able—apparently at least—to forget all about the camera.

There is always something fresh to be learned from every sitter and every portrait; one can never exhaust the infinite possibilities.

The technical problems of lighting, exposure, and development can to some extent be solved by a course of lectures and practical demonstrations, but there is another profoundly interesting study that must be taken into consideration by all who desire to excel in portraiture, and that is the study of human nature.

Text-books and lectures are of little use here; there can be no rules or axioms, every different sitter has a different individuality, and there is no end to the infinite variations.

## THE STORAGE OF NEGATIVES.

THE "stored negative" is the photographers' hope for the future. Their proper storage is a matter of some importance if re-orders are looked for. Mr. R. Child Bayley writes interestingly on the subject in *Photography* as follows:

Whatever may be said or thought about the permanence of different kinds of prints, the photographer is apt to look upon the properly fixed and properly washed negatives as free from all risk of change. There is a great deal to justify his confidence, and, in spite of alterations which have been detected in astronomical negatives, where the very faint images of some stars have been found to disappear in time, there is no doubt that in ordinary circumstances negatives on gelatine dry plates remain practically unaltered for a very great number of years; in fact, they are fairly entitled to be termed permanent.

While this is true of negatives kept without any very special precautions, such as collodionizing and varnishing—processes which, if not absolutely obsolete, are at least obsolescent—certain recent experiences, both of our own and of our readers, show that it does not do to place too absolute a reliance upon their unalterability to the extent of omitting some of the simplest precautions.

### *Lettering Setting-off on the Plate.*

For example, a negative lies before us as we write on the film of which there is clearly to be read the word "photography" and other lettering, part, apparently, of an advertisement of somebody's plates. The reader who sends it to us writes: "I should be obliged if you could inform me how the lettering has got on the negative. You will notice it in the foreground, and, so far as I can see, there is no means of removing it. I have always placed printed paper between my negatives, storing them in the boxes the plates are brought in. I can hardly think the defect has come merely from this, as it is the first case of the sort I have ever had in over twenty-five years' experience. I have always understood plates were insensitive after they have been fixed and dried. The lettering has appeared only recently, although the negative is quite an old one. If the trouble is from the printed paper, it is easily obviated by using plain paper, but I do not wish to have the trouble of changing a thousand or more dividing papers till I know there is a possibility of damage from this cause."

That the printing has in some way set off from the paper there can be no doubt at all; but the nature of the action is not easily explained. The image of the print goes right down into the film, just like the original image on the negative, and on applying Baskett's reducer—an infallible remedy for all surface markings—the two are reduced together, and by the time the whole of the print is removed practically the whole of the other image is removed also. As the lettering is darker than the rest of the plate, it is clearly not a fading that has been caused by the printer's ink; in fact, we are more inclined to think that it is the rest of the negative that has faded somewhat, and that the action of the printing ink on the paper has been to delay the fading in those parts.

### *Printed Paper is Most Unsuitable.*

Be that as it may, there can be no doubt that printed paper is a very bad

material to put against negatives which may be wanted again at some future date, and our correspondent would do well, we think, to get a quire or two of good, thin Swedish filtering paper, cut it up into pieces of suitable size, and change all his printed paper for that before any more harm is done.

It may be asked, Why use filter paper, which has to be got specially for the purpose from some dealer in chemical apparatus? Why will not ordinary white paper do? Well, ordinary white paper will do, just as pieces of newspaper will do, and in ninety-nine cases out of a hundred no harm results from the use of either. But in that hundredth case harm *does* result; the negative is badly injured—may be ruined—and that particular negative is almost sure to be one that we would much prefer should not be ruined.

### *A Curious Experience with Plain Paper.*

A curious experience of our own during the last few days is worth recording. All our negatives (several thousands) are stored in plate boxes, and between the films of each two is placed a piece of plain white "bank post" paper, which we get in quantity, all ready cut to size. On turning out a box of negatives so stored, which had not been looked at for eight or ten years at least, one of them had undergone a most strange metamorphosis. The paper had not lain quite squarely upon it, and there was a strip along one side about a quarter of an inch wide, which the paper had not touched. That strip was quite unaltered, as were all the other negatives in the box; but the rest of the image had been completely bleached through, and was a pearly white on both sides, showing up excellently as a positive when held so that what was behind it was quite dark. Something in the paper had very obviously led to this result, but, whatever it was, it was limited to that one piece, which was to the eye precisely similar to all the other pieces in the box.

### *Best to Use Pure Paper.*

It will be seen from this, then, that it is very desirable when negatives are apt to be kept in contact with paper to make sure that that paper is so far as possible chemically pure. If they are not of any great importance, and are only kept from a reluctance to throw away anything from which a print might possibly be wanted one day, no doubt ordinary plain white paper is good enough for the purpose; but printed paper, such as old newspaper, is certainly to be avoided.

When negatives are to be put aside for a long time, and not to be turned over at intervals, it is better to avoid all risks of this kind by putting nothing whatever between them, merely arranging them in pairs with the film sides of each two in contact, taking care, of course, that there is no dirt or grit between them to lead to scratches. Such a method of storage not only insures them from accidental contact with something that may be impure, but the close contact between the films protects them to a great extent from

### *The Action of the Air,*

and when negatives are to be kept for a long while this is very desirable. It was not so important when all negatives were varnished, as was compulsory in the wet plate days, and was very generally the case when collodion began to give way to gelatine. The varnish kept the air from the film, and negatives could be stored without reference to atmospheric action..

Grooved boxes used to be used very largely for storing negatives. Ordinary unvarnished negatives, such as most of those now made, do not keep at all well in grooved boxes, and if the contents of a box which has been put aside for a few years are examined it will often be found that the negatives have altered considerably in appearance, the contrasts being lessened, the whole negative paler, and metallic markings appearing at the edges. That these changes are favored by exposure to the air there seems to be no room for doubt, though the negative, from imperfect fixing or insufficient washing, was probably left with an inherent tendency to alteration.

We have only written this to put our readers on their guard against causes of deterioration, which hitherto they may not have suspected, and in no way with the idea of creating a scare as to their keeping properties—a subject on which we have no doubts at all. Properly fixed, adequately washed, and kept where at least they will not get damp, we believe that ordinary negatives piled one on top of another in the boxes in which the plates were originally supplied will keep unaltered for an almost indefinite period.

## SEPIA TONES WITHOUT REDEVELOPMENT.

BY D. H. CROSS.

SELECT a paper that gives vigor, most vigor; also a developer that produces contrast. Expose it long enough to get detail in highest lights; weaken the developer until you can easily see and control results, say at least a minute in warm weather. Aim to get a sepia effect for a basis of a series of tones to be produced in a separate toning solution made as follows:

Sulphuric acid, c. p., 60 drops; water, 20 ounces. In hot weather dilute to half strength. Place developed print in hypo, one-half pound; water, one quart; sulphite of soda, one-half ounce. Without washing off the hypo place the print in a small tray and use 1 to 4 ounces of the acid solution and note the changes. A decided milkiness results from precipitated sulphur, that with the acid rapidly eliminates both green and yellow and gives various shades of sepia, browns, warm black to cold black. On glossy paper old collodio-aristo tones can be produced very similar to the old aristo tones we used to make.

Two developers, one for soft sepia effects and the other for contrast and darker tones, are used. The formulas are as follows:

No. 1, Soft Sepia:

| | |
|---|---|
| Eikonogen | 20 grains. |
| Hypo. soda (cryst.) | 20 grains. |
| Hydroquinone | 60 grains. |
| Sulphite soda, dry | 240 grains. |
| Carbonate soda, dry | 240 grains. |
| Bro. ammonia, 100 gr. in 1 ounce of water | 30 drops. |
| Water | 20 ounces. |

No. 2, Contrast and Darker Tones:

| | |
|---|---|
| Ortol | 20 grains. |
| Hypo. soda (cryst.) | 20 grains. |
| Hydroquinone | 100 grains. |
| Sulphite soda, dry | 240 grains. |
| Carbonate soda, dry | 240 grains. |
| Bro. ammonia, 100 gr. in 1 oz. of water | 30 drops. |
| Water | 20 ounces. |

Proportions of the above formulas may be varied to suit negatives and to get tones desired. Fresh hypo is desirable, as it gives a milkiness that old hypo does not give. Stop action short of color desired, as drying cools the tones,

and especially is it necessary to wash prints at once, or undesirable lemon-yellow tints result.

If a print after washing and drying is too yellow, green, or sepia, it can be toned by first immersing it in hypo solution and then in acid solution with as good results as in the first instance.

The proportion of hypo in the developer may be doubled or trebled without injury if purer whites or more yellow color is desired before toning. A much larger increase of hypo will produce flat, mottled, and yellow prints.

The free sulphur milkiness in the toning solution gives a P.O.P. effect to developed paper, so much desired by its devotees.

## REDUCERS FOR PRINTS.

THE editor has often pointed out that a defective negative or print should be smashed or torn up, and that it is poor policy trying to coddle it into some semblance of a good one. With the soundness of this advice, in the main, I have no fault to find; but, in my own experience it sometimes happens that it becomes very desirable to disregard it, and to make the best of a bad job. I expect plenty of the readers of *Photography* have found themselves in the same boat, and will be glad of any advice or hints on the subject that a fellow worker can offer them from the results of his own experience.

Now, the image in a negative consists of silver in gelatine, and the image in a bromide or gaslight print is composed of the same material. In the case of P.O.P., the presence of other silver salts complicates things, but for our present purpose we shall not be very far wrong if we take it that the image consists of metallic silver here also. It follows from this that it should be possible to act on such images with intensifiers and reducers, which will act on negatives with very similar results. It is with reducers that we are concerned at present.

There is one difference between the two cases which we must not overlook. In the case of prints, a good and agreeable color is a very important consideration; while with negatives, so long as it is a good printing color, the actual tone does not so much matter. As some reducers alter the color of the image and leave it not at all a pleasant one to the eye, we cannot use such on our prints, unless those prints are subsequently to be toned by some other process.

The first reducer to be considered is one which will undo the light's action, as it were, and make an overprinted proof appear as if it were correctly printed. If the negative were a good vigorous one, the only satisfactory reducer will be found to be ammonium persulphate. The others lighten the print, it is true, but have a decided tendency to increase its contrasts. If we are dealing with P.O.P., the reducer must be applied before toning, but after a very thorough washing; if it is a bromide or gaslight print that is to to be reduced, it may be done after fixing, but the print must have been thoroughly washed first to remove all traces of hypo.

For such cases I have found a most efficient reducer to consist of 12 grains of ammonium persulphate in an ounce of water. The print may be put into this solution dry or wet, and when seen to be reduced sufficiently it is placed in a 5 per cent. solution of sulphite for a minute or two, then in a plain hypo bath, washed and dried. If the persulphate is allowed to act on the

print for too long a time, say for more than three minutes, it will generally change the color to an unpleasant brown. If, therefore, the print has not been sufficiently reduced at the end of that time, it will be better to take it out, give it the sulphite and hypo treatment, wash it, and begin reduction *de novo* with a freshly mixed solution.

Prints which will not be hurt by having their contrasts somewhat increased by reduction may be treated in several ways. The most popular reducer is ferricyanide and hypo, and this can be applied to a print as well as to a negative, but it has a tendency to discolor the whites and to leave the print itself rather rusty in appearance. For a very slight reduction, however, it can be used, especially when what is wanted is a mere cleansing of the whites, as in the case of a masked print on gaslight paper. A little of the ordinary hypo solution should have enough ferricyanide solution added to it to make it of a pale yellow tint, and the print should be treated momentarily in this. As this is a very rule-of-thumb method of making up the reducer, it is well to try it by putting a little strip of spoiled print in it for a moment, to make quite sure that it is not too powerful, because if we once carry reduction too far we cannot restore what we have removed. A few seconds in such a bath as this will generally be found sufficient to brighten up the high lights and turn a muddy-looking print into a clear one.

Another reducer which acts powerfully and quickly on a print, and if not allowed to go too far does not spoil its color, is the permanganate one. A crystal of potassium permanganate should be dissolved in water and diluted till the liquid is quite transparent even in a thickness of two or three inches; so little is needed that the eye is a better judge of the strength than if it was weighed out. To four or five ounces of this solution two drops of sulphuric acid are added, and it is applied to the print. The reduction is very rapid, so rapid that in this case also it is wise to put in a strip of a spoiled print to make quite sure that the action shall not be carried too far. After it is seen to be sufficiently reduced, the print may be washed and dried.

A third method which I have used satisfactorily has one drawback about it, and that is that it is not very easy to determine how far the reduction is being carried. It will answer excellently for clearing up the high lights of a print, and in this case can be watched closely enough. A 10 per cent. solution of copper sulphate may be made up and kept for stock. To reduce a print we take 1 dram of 10 per cent. potassium bromide solution, 1 dram of 10 per cent. copper sulphate solution, and dilute the mixture to 4 ounces in all. As soon as the discoloration on the whites seems to have disappeared, the print must be taken out, washed quickly, and placed in an ordinary hypo solution, in which it is left for five minutes. It is then washed and dried.

There remains one more reducer to be mentioned. I have left it till last because it has one great recommendation and one very serious drawback. It is the cyanide and iodine method. Its advantage is that it in no way alters the color of the image, whether it is applied slightly or whether reduction is pushed until there is little beyond white paper. This makes it particularly suitable not merely for reducing overprinted prints, but also for vignetting and similar operations, which are beside my present subject. Its drawback is that it involves the use of a most dangerously poisonous substance, potassium cyanide. Two solutions are needed—one a saturated solution of

potassium cyanide in water, and the other a saturated solution of iodine in alcohol. The tincture of iodine sold by chemists will answer for this second one. A dram of the cyanide solution must have half a dram of the iodine added to it, and the mixture is diluted with water to make four ounces. The print may be put in it dry or wet, and when sufficiently reduced is taken out, washed, and dried. The mixture may be used more dilute if preferred, while for special purposes it may be employed very much stronger; but its action is very quick, and it is therefore well to keep it under control by making quite sure that sufficient water is present.

Enough has been written, I hope, to convince the amateur that a print that has been much overexposed is not of necessity absolutely spoilt. It will never be as good as a correctly printed one, and it is usually better policy to tear it up and begin again; but at times it may happen that reduction is worth trying. When it is, one of the processes just described will no doubt meet the needs of the photographer.

## METHODS AND FORMULÆ.

*Press Photographers Again.* We quote the following from the *Daily Mail* of the 13th inst.: "Last evening the photographers at Le Mans, who are not allowed to take photographs, protested once more to Mr. Wright and marched off the racecourse. Presently a dozen of them crept back softly amid the trees up to the boundary of the racecourse. Suddenly, as Mr. Wright and his men were engaged in fixing the aëroplane preparatory to a flight, one photographer rushed out, took two photographs at close quarters, and started back to cover. He was followed by a policeman and Mr. Wright himself, but reached the boundary and safety first, amid cheers. Taking advantage of the chase, a dozen other photographers dashed in on all sides and snapshotted the aëroplane from every conceivable position. All got away except a kinematographer, who was unable to move his heavy instrument. He looked the picture of despair as Mr. Wright and a policeman came up and threatened to have him arrested for trespassing unless he gave up his films. The man drew out a long band of films, which Mr. Wright took. The man got into a motor car in waiting, and as he drove off shouted, "I gave up unused films; I have got the real ones here." Numerous kinematograph entertainments in Paris are already advertising Mr. Wright's flights.

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*Packing Negatives.*—W. J. Casey, the manager of Raines & Co., enlargers, of Ealing, gives the following as his firm's experience in the safe packing of negatives. For a half-plate negative a box with sides ⅜ of an inch thick, and top and bottom ¼ inch thick, is necessary, the negative to be surrounded with something to deaden vibration, such as wood-wool or absorbent cotton, or at a pinch crumpled paper. When packing several negatives in one box, they must be so placed that the smaller negatives do not exert any uneven pressure on the larger ones. If, for example, a ¼-plate has to be packed with two ½-plates, it is obvious that if packed in between them it will at once act as a fulcrum on which the negative above can see-saw. And see-sawing is most decidedly not advisable where glass is concerned. The best plan is, under such circumstances, to place the two ½-plates film to film, and then, on top of them, a piece of card of the same size. The weight of the ¼-plate negative resting on the card is then distributed evenly over the ½-plates.

By Blissenbach Studio, Mankato, Minn

By Fred. J. Feldman, El Paso, Texas

By Fred. J. Feldman, El Paso, Texas

By Arthur Hammond, New York

By Arthur Hammond, New York

1. Self Portrait
2. Lady Ridley
3. Mrs. G. Bourke
4. Marquis of Salisbury

*Illustrating Sidney Allan's Article*

5. Richard Wagner 6. John Ruskin

7. Governors of the Charter House

*Illustrating Sidney Allan's Article*

8. Lady in Black
9. Lady in White
10. Lady Eden
11. J. J. Colman

*Illustrating Sidney Allan's Article*

# MASTERS IN PORTRAITURE—HUBERT HERKOMER.

BY SIDNEY ALLAN.

ALTHOUGH a German by birth, Hubert Herkomer, like Alma Tadema, is classified as an English painter. He has been a resident of England since his boyhood, and his name is closely associated with the art events of the last thirty-five years. His success came early in his life. From a poor boy, the son of a carpenter, he made his way in a few years to the front ranks, socially as well as professionally. Already in the early seventies, when he was not yet twenty-five, his work attracted attention, and his reputation was established after he had exhibited his Wagner and Ruskin (Figs. 5 and 6).

Herkomer devoted himself with preference to the depiction of South German peasants, of incidents from the life of poachers in the Bavarian mountains, of emigrants, British army veterans, and the frugal existence of the English laborer and villager. The latter are rather of a gloomy socialistic tendency.

These paintings, mostly of large dimensions, helped him to become widely known. He painted seldom more than two or three of them annually, the largest part of his time being taken up by portraiture.

Technically, Herkomer is a quaint combination of Teutonic sentiment and realistic draughtsmanship and the elegance of pre-Raphaelistic classicism with its love for detail. It is particularly noteworthy of his portraits. They have a refinement and finish which German art hardly ever has, and yet they show severity in line and a keener appreciation of character and facial construction than the majority of English portraits show.

One of the greatest successes ever achieved by any single portrait—not barring even Whistler's "Mother" and Lenbach's "Pope Leo XIII"—Herkomer scored with his "Lady in White" (Fig. 9). It was a truly popular picture. For once the critic and layman, the aristocracy and middle class population, agreed. It was exhibited all over Europe, and met with approval everywhere. It is difficult to state how it caught the public fancy, but it seemed to possess for all, at home as well as abroad, the fine native flavor which was so characteristic of the English portrait school.

The composition is exceedingly simple—a gray figure against a lighter gray background. There are no accessories and nothing elaborate in the seated attitude, but just the ordinary formula of a full-face view of the head and three-quarter view of the body. But the whole arrangement is so graceful and elegant—the pretty English face, the simple coiffure, the gown of soft fabric only slightly unconventional in the lower folds and drapery effect, and the plump, well-shaped arms with the dark *mousquetaire* gloves, that lend a touch of piquancy to the whole picture. There is no fault to find with it, except with the foreshortening of the one fore-arm, which I always considered awkward. The tonal quality is excellent, everything is delicate and suave, and the darker accents are vaguer than in most pictures. Notice the shimmer of light around the head. Herkomer always applied this trick when he painted a light figure against a light background (as in Fig. 10), but rarely ever in his other favorite combination, as a light figure against a dark background (Figs. 1 and 2), or a dark figure against a dark background (Figs. 3, 4, 8, and 11).

"The Lady in Black," which he painted during a short sojourn in America, in 1886, and for which a Miss Silsbee, of Boston, sat, was almost equally successful. It is not quite as "pretty." The pose is more elaborate. By putting the arms apart and away from the body a more animated beauty of lines has been established. The arms and hands are exceedingly graceful, as they are in all his lady portraits (viz., Figs. 3 and 9). The features of the face are a trifle sterner and more intense than those of the English beauty, and they probably determined the whole scheme of composition. The effect of black against black is modified by the middle tint of the cloak that surrounds the lower part of the figure. Somehow the pose was too statuesque to allow the direct treatment of Fig. 3.

Fig. 3, the portrait of Mrs. G. Bourke, although an excellent portrait, lacks the distinction of the other two. It teaches, however, the valuable lesson that the true flesh values of arms, bust, and face do not need to be sacrificed in a dark tonality. My advice in such cases would be, do not darken the flesh, but rather intensify the general darkness of the pictures. The stronger the contrast the more beautiful will be the impression, provided the arms, face, etc., show distinct and graceful lines and form shapes that are agreeable to the eye. The fan in the lady's hand is used to good advantage. It helps to carry out the particular pose and keep one of the arms occupied. All would have been spoiled, however, if the fan had been light or clearly defined. Then its shape would have been obtrusive, while in the present arrangement it is hardly noticed. This reveals a wise and skilful use of accessories.

The "Lady Eden" (Fig. 9), impresses one as being a trifle rigid in pose, yet it has considerable charm of lines; the foreshortening of the legs is masterly, and the out-of-door effect, with the suggestion of real air and country, is refreshing after the everlasting Romney and Gainsborough effects. There is no reason why a sitter should always be placed in the twilight atmosphere of a wood or park. It has become hopelessly stereotype, and shows little invention and, frequently, shockingly bad taste.

"The Lady Ridley" (Fig. 2) is interesting for the vivid handling of values in the gown. There is a snap and go to it that is delightful. Also the silhouette is excellent, always a difficult proposition when the background is plain and very dark. Noteworthy is also the management of the train. Most artists would have placed it so that it would have hidden the hem of the gown. This would have made her look taller. But why must all women in bridal and ball dresses look tall? There is no earthly reason for it, so far as I can see, unless the lady wants to make people believe that she is taller than she really is.

Herkomer's portraits of men reveal the same charm of directness and grasp of character that we admire in his delineations of women. His Wagner (Fig. 5) is considered one of the best portraits extant of the great composer. The lighting of the profile (toplight sideways from the rear) is peculiar as it is fascinating. The strong highlights, deep shadows, and decided contrast of black and white emphasize the vividness and strength of facial expression, and in a way suggest the dramatic intensity of his music. Quite different in conception is his "Ruskin." There everything is color and gray, a play of slightly blurred planes in middle tint without any decided accents.

The "Self Portrait" (Fig. 1) I like least of all. It lacks his usual repose, of which even his "Wagner" is not devoid. It is a clever arrangement of light and lines, in particular of the sweeping curve of the pallet, continued as it is by one of

the legs, but there are too many minor white and dark planes of the same intensity. The twist of the body is natural enough, and the detail, as, for instance, in the folds of the coat, carefully thought out and handled. The only objection is the spottiness and a certain affected restlessness in the total result.

His portraits of "Marquis of Salisbury" (Fig. 4) and of "J. J. Colman" are simple, forceful interpretations of manhood. There is no striving for any kind of effect except that of truthfulness. There is nothing unnecessary about them. They are straight to the point, and it is achieved by the simplest means. There is nothing to criticise in Fig. 11. It is perfect, unless you should object to the tiny highlight on the arm of the chair on the left side. I contend that it helps to accentuate the shape of the arm and leg. Fig. 4 is a wonderful example of artistic moderation. What loud effects some artists would have concocted out of the glittering gold braid of Lord Salisbury's robe of state! Herkomer knew how to keep it subdued, to preserve its stateliness, and to lend grace to a rather awkward and cumbersome gown. A treble triumph, indeed.

"Governors of the Charter House" (Fig. 7) represents one of the most ambitious tasks of his career as a portrait painter. Twelve portraits in an interior. It would daunt the skill of the greatest artists. One involuntarily thinks of Rembrandt and Franz Hals, and if one is not too partial to the Old Masters, a comparison might be justified. It has not the technical brilliancy, the vivid animation and coloring of the Dutch masters. It is sober and gray as modern life, as it behooves dignified old gentlemen that assemble in a chapel. But too much praise can hardly be bestowed upon the composition. The painter has solved the problem. There are a dozen or more figures—distinct portraits, many in full-face views—grouped in natural attitudes. They are not posing. They represent instantaneous expression. The lighting is exceedingly skilful. The strongest light has been concentrated upon the heads, exclusively reserved as it were, upon the row of faces—this is a license, as it is not true to nature, but is permissible, and as it has produced the desired artistic effects—they form a harmonious undulating line of bright spots across the picture which lends a certain cheerfulness to the scene and produces an interesting contrast to the general middle tint effect that pervades the whole composition. From the point of composition—drawing, division of space, handling of chiaroscuro, character delineation, and natural expression—it is a masterpiece.

The next article of the series will be devoted to the works of Koner, the German portrait painter.

## A PHOTOGRAPHIC FAMILY.

One of the best-known names in photography in the Middle West is that of Townsend. It is a name that has been building up since the early ambrotype days, and present indications are that it will be a name to conjure with in the time to come.

The following information is supplied by Mr. George Graham Holloway. Examples of the work done by the Townsend Studios were shown in our last issue:

I have known the Townsend family for many years, and consider it quite an honor to be classed among their best friends. I will try to give you a brief

history of them and their photographic career.

To begin with, Pater Townsend is nearly seventy years young, and is as strong and as hearty as either of his boys, who are not to be trifled with as vigorous men. Mr. Townsend entered the profession during the ambrotype days, and took for his motto "*Progress*," and he has been progressing ever since. He was in Iowa City for twenty-five years, then he moved to Lincoln, Nebraska, where the two boys received their first photographic schooling. He remained ten years in Lincoln, during which time the eldest son, Alva, was his retoucher and assistant operator and Charles held down the printing end, which was in the old albumen days.

After ten years in Lincoln the place was sold to the eldest son, and the father and Charles went to Los Angeles, Cal., and took possession of the old Westerfelt Studio, then the leading studio of California. There the father left Charles to battle for himself and returned to Iowa City, his first love, and has been there for the last eleven years. A hale, hearty, grand old young man.

Mr. Townsend, Sr.

Charles Townsend Alva C. Townsend

After one year in California, Charles

became homesick and returned to his native State, and located in Muscatine, where I first met him some years ago, serving in the capacity of secretary of the Photographers' Association of Iowa. He served the Association so faithfully that he was unanimously elected president of the Association, and served with great credit. A few years ago he located in Des Moines, where he has a fine business and an ideal studio. Charles Townsend will some day be heard from in National Association affairs, for he is too good a man to hold down.

Alva Townsend has had the pleasure of serving his association—the Nebraska Photographic Association—in a number of capacities, and was honored with the presidency for two consecutive years. All of which proves that the Townsends are men of rare executive ability, and are not afraid to use it.

This family has certainly made a success in the photographic business, and it is possible for all who will apply themselves as this family of photographers has done.

May we have more of such men in the profession.

G. G. HOLLOWAY.

## ABOUT MARGINS.

THERE is one thing, writes Angus M. Moffat in *Photography*, about the commercial mount with its India tint or embossed design which cannot be said for the plain piece of card or Nature paper, and that is, that the user is in no doubt whereabouts on the card his print should be stuck. There is the place laid down for it, and clearly marked out by the manufacturer of the card, who dictates both size and location of the print, and the photographer has nothing more to do than to stick it there. It is this which has led to the "shop mount" being so much decried by those photographers who seek, by giving individual treatment to every one of their prints, to make the very most of each.

When the photographer trims his print to suit the subject and not some stock mount, and starts to mount the print on a plain card, he has to ask himself whereabouts on that card his print should be placed.

"In the centre, of course," is the offhand reply which some expert technician would give; "anything else is an affectation," he may perhaps add. But this is much too sweeping an assertion, and it is safe to say that the mathematical centre of the mount is the one position which the print should never occupy. That is, so far as pictorial work is concerned. There is no reason why diagrams or records should not occupy the centre, unless their producer likes to put them elsewhere.

There is a curious optical illusion connected with the mounting of a print which anyone may witness for himself by placing the print exactly in the centre of the mount, measuring the space above and below it to make quite sure that these two margins are equal. If such a print is glanced at, it at once appears to have less margin below the print than above it; the picture, in other words, seems to have slipped down. When the question is deliberately studied, we may or may not recognize that this is not so, and that, as a matter of fact, the spaces above and below the print are equal. But they do not appear equal; and in the mounting of prints their appearance, and not what a foot rule can tell us, is what is of importance. This "slipped-down" effect is still more striking if there happens to be a title

of any sort beneath the print on the mount.

No very satisfactory explanation of this phenomenon has been offered, but that need not trouble us. All we are concerned with here is the fact itself, and that is beyond dispute. To counterbalance this appearance, then, it is an almost invariable custom among photographers to place the print on the mount a little above the centre. How much above will depend upon circumstances. Ordinarily the best effect is obtained when the margin at the top is the same as at the sides, about one-third more being allowed below the print; but some photographers prefer to have less margin above than at the sides. The former is certainly better when the print is a vertical one, and in this case the extent of mount below the print may be increased beyond the one-third just laid down, giving the picture something to stand on, as it were. With horizontal pictures, and particularly with those that are very wide in proportion to their height, the top margin may be reduced a little.

And here is to be noted another curious thing in connection with the appearance of these margins, and that is, that when the space below the print is exactly double that above it, or double that at the sides, the effect is not a very agreeable one.

A somewhat similar feeling, but not to so great an extent, will be found to arise when the relationship of the width of one margin to that of the other is half as much again. In fact, it arises whenever the relation is a very simple one. For example, if we have a margin of one inch at the top and at the sides, a margin of two inches at the bottom is unsatisfactory, of an inch and one-half, or of two inches and one-half, is better, but an inch and one-third or an inch and three-fifths, or any less simple relationship, is better still. This curious fact is still more noticeable when the print is being mounted on a series of mounts in the "American" or multiple fashion; and in such case a simple relationship between the width of the different mounts goes a long way to spoil the effect.

There is another very good reason, and this time an obvious one, for allowing more space on the mount below the print than elsewhere, and that is that when a mounted print is handled it is generally held by the lower part, if the mount is stiff enough to allow of this, and by providing more space at the bottom the print is not only better kept from chance finger marks, but is also further from the hand, and so is seen better.

We sometimes see photographs which are mounted with more margin on one side than on the other; sometimes this is carried to such a pitch that the print is stuck right up in one corner of the mount. There is no esthetic explanation for this eccentricity, and it is usually the result of affection or a heedless desire for the unusual. The type on a page of print is generally placed, or imposed, as the printer terms it, with more margin at the bottom than at the top, and with more at the outer edge than at the inner one; and when the mounted photographs are to be seen in a book this is a good rule to follow. That is to say, if the print is to be on a right-hand page when the book is open, a little more margin should be allowed on the right of the print than on the left, and *vice versa*. A glance at the position of the type on a book by any of the leading publishers will show the extent to which this may be carried with advantage.

This is the only exception that can be made to the rule that the print should have an equal margin on both sides, without the photographer laying himself open to the charge of affectation, for here, as can be seen, there is a perfectly sound reason for the inequality.

## PRINTING UPON CANVAS.

SOMETIMES the photographer is desirous of making a print upon canvas that has been prepared for the artist for oil painting.

One method which is very good is to make the print in carbon, and transfer this print to the canvas, or to develp the print direct upon the canvas by what is known as the single transfer process. This is not easy to perform by those who are not familiar with the carbon process. There is another way by which an excellent picture can be made upon the artist's canvas, and allowed to remain as a plain photograph or used as a base for painting in oil color.

The process to be described is very simple and easy in manipulation; so much so that any person not previously acquainted with photographic manipulations can take the work in hand without fear of failure, and make a good picture. The piece of canvas that is to be operated upon must be laid out flat upon a sheet of glass, the painted face up. This can be held by the four corners with four clean wooden clips. The surface must now be well rubbed out with a tuft of absorbent cotton soaked in pure alcohol; that known as rectified spirit is just the thing. A piece of clean board will answer instead of glass, but the latter is to be preferred because the clips take on a better hold.

The surface must be rubbed over well in circles, continuing until any trace of greasiness disappears; then wipe the excess of spirit off by dabbing the surface. Take care not to rub the surface too hard, or the surface of the canvas may become bared; the canvas would then be spoiled. The surface, after the dabbing, must be washed by carefully pouring clean water over it, taking care not to allow the water to run between the canvas and the glass plate.

As soon as this is dry the surface must be coated with the following preparation:

| | |
|---|---|
| Distilled water . . . . . | 6 ounces. |
| Hard gelatine . . . . . | 8 grains. |
| Chloride of ammonium . . . | 18 grams. |
| Citric acid (powdered) . . . | 4 grams. |
| Alcohol . . . . . | 1 dram. |

The alcohol must be added last, after the mixture has been heated and stirred well so as to secure complete incorporation. The above mixture must be filtered while still warm, and applied to the canvas in the following way: Place the canvas in a suitable tray, so that the ends and sides are turned up to form a kind of tray in itself. The above mixture is applied by pouring it on the canvas, allowing it to stand for about one minute; then pour the excess off from one corner; then lift the canvas and suspend it to dry.

Several pieces should be prepared in this manner, and kept ready for sensitizing; the drying must be conducted away from heat and dust. As soon as the surface is dry it will be ready for sensitizing. If the canvas is prepared in the evening, it will be dry and fit for use the following morning. The sensitizing solution is made up of

| | |
|---|---|
| Nitrate of silver . . . . | 200 grams. |
| Distilled water . . . . . | 4 ounces. |

To sensitize the canvas, all that is necessary is to place it in a tray with the edges turned up, as in the case of the preliminary coating, and pour nitrate of silver solution upon it; allow this to remain for about two minutes; pour off the remaining solution, re-

turning it to the stock bottle or graduate for future use. Lift the canvas from the tray and suspend it to dry in the same position as that adopted in the first instance; this will permit even sensitizing.

As soon as the canvas has become dry it is ready for printing. If the negative is a half plate, be sure and use a larger printing frame, so that the canvas does not become crumpled, which would be sure to cause a defective print. Place it in a 6½ by 8½ printing frame, or an 8 by 10, with a stout piece of glass in front to rest the negative upon and to resist the pressure; by adopting this means a perfect print will result. Print down to about two shades deeper than required when finished; as soon as the printing is complete the canvas must be again placed in a tray with its sides again turned up, and the surface washed by several changes of clean cold water to get rid of the free nitrate of silver.

After this the print can be toned by pouring the toning solution upon the surface and allowing it to remain for a minute or two. The edges of the canvas being turned up, it forms a dish or tray in itself. The toning solution is made up as follows:

| | |
|---|---|
| Chloride of gold . . . . . | 2 grams. |
| Warm water . . . . . | 20 ounces. |
| Common whiting or chalk . . | 60 grams. |

The mixture should be shaken well, and, when cold, filtered; it is then ready for use. When the print is toned it must be washed by pouring water very gently upon the surface; never allow the water to strike the print with force, or the image will become injured. As soon as washed, fix the image in a solution of

| | |
|---|---|
| Hyposulphite of soda . . . . | 2 ounces. |
| Water . . . . . | 16 ounces. |

Fixing will be complete in ten minutes, after which the print may be well washed and dried, then mounted upon a stretcher in the usual way for painters' canvas. In some cases—for instance, when the portrait or view is to be completely covered with oil color—it will not be necessary to tone the print; simply fix it in the hyposulphite of soda solution.

Wash the print well; then flood it with a weak solution of common alum—half an ounce of alum in ten ounces of hot water—and use the solution when it has become quite cold. This will change the color of the print slightly, but otherwise will not affect the picture for painting upon.

Landscapes and marine views can be produced upon painters' canvas in this manner, which forms an excellent base for oil painting. The method here described is intended for printing out only; the prepared surface is not sufficiently sensitive for enlargements, except in a solar camera, and then it would absorb too much time and trouble, because it would depend upon printing right out to full depth and would not admit of developing.

The reason why a gold toning bath is used that has been neutralized with chalk, is to avoid any alkali coming into contact with the oily portion of the paint; this would form a kind of soap and cause the film to become loose.

To prevent any tendency of loosening the film, a very small quantity of common salt may be added to the toning solution, about twenty grains; not more than this quantity, because it must be remembered that common salt is a fixing agent—a mild one, 'tis true, but nevertheless it is a fixing agent and may stop toning altogether. —*The South African Journal.*

## PHOTOGRAPHY IN THE SERVICE OF ADVERTISING.

THIS is a plea for the greater use of the photograph in advertising—both in its half-tone reproduction for illustration and in its actual form for showcard and similar purposes.

The public dearly loves a photograph. All through the big postcard boom it paid its twopences for "real photograph celebrities" compared with the penny or less for the many competing colored varieties, thus violently upsetting the "penny plain, twopence colored" theory of values of our childhood.

### *Public Prefers Photographs.*

But strongest of all reasons that I can bring forward is the steadily increasing use of photographs in the editorial pages of the popular press. The managements of these publications gauge the public taste to a nicety, and advertisers may well follow the cue thus given.

As Kenneth Groesbeck puts it in the *Printing Art*, "the advertising value of anything is based on the intensity of the impression it creates. A photograph, as a general thing, makes better advertising than a drawing. This, when naturalness is desired. If we are illustrating any commonly seen objects, or if figures of people enter into our scheme of illustration, photography is valuable. It convinces by its very accuracy."

And is not "naturalness" the most desirable of attributes in advertising? Is it not more desirable even than the humor that so many advertisers aim at incorporating in their publicity? Ask a woman who has to sweep rooms herself, or (what is seemingly harder work still) who has to direct the servants doing so, her impression of the Hassall "Help" poster. Then ask her what she thinks of the Allenbury mother and child, and you will soon learn which appeals the more strongly. Certainly Allen and Hanburys have run the one subject a long time, but it is quite possible to use photographs, and yet change copy frequently, as witness the excellent half-page of Pearline Soap Powder and the full-page of Washburn-Crosby flour in the American magazines, both of which use a new subject every month. These two advertisers, be it noted, use photographs specially taken—photographs that are made to fit the copy, and not, as are the majority of photographs here used, taken at random and offered to the agents for the article for its name to be worked in and copy written, more or less loosely, around it as opportunity offers.

### *Who Will be First?*

Who will be the first advertiser to run such a series in our monthlies or weeklies? Obviously the work can only be done by a really good professional photographer, and as such must be well paid for; but even at that, and including payment to the models, the cost would not be nearly so much as that now paid for good pen-and-ink and wash drawings.

I would lay particular stress on this necessity for co-operation between the advertiser and the photographer. Up to the present there has been too much reliance on more or less spasmodic work. I venture to assert that one-half of the sum awarded in prizes in the Bovril photographic competition a few years ago (one recognizes, of course, that other motives besides the acquisition of photographs were behind the scheme), if spent in commissioning one or other of the West End photographers whose imprints appear below the theatrical photographs in the weekly papers, would

obtain such a series of photographs as would create no little attention.

*Photographs Must be Good.*

There is room, too, for more photographs of the article itself than are being used—I mean good photographs of the kind used by Hampton and Maple. The trouble is that too many advertisers think that any photograph is good enough for half-tone reproduction, and that the engraver's artist and fine etcher can work wonders, and that without extra charge! During the last few years great improvements have been made in photography of colored objects, and with such a plate as the Wratten Panchromatic and properly adjusted filters, it is possible to photograph even polished mahogany furniture without reflections, and still to show the beauty of the figuring. But for work of this description it will be necessary to call in the photographer who has made a special study of commercial photography; it will not do to intrust the work to the junior clerk who is the proud possessor of a guinea hand camera.

And how little are photographs used as compared with what they might be.

*The Manufacturer at Fault.*

The retailer cannot be blamed—except in the case of the companies working a chain of shops—but surely the manufacturer, especially of foodstuffs, who is producing a better article than most of his competitors, might well make use of photographic showcards. For instance, sausage-making—long the butt of the would-be funny man—could be demonstrated by Messrs. Palethorpe, of Dudley Port, in such a way as to show the product of their model plant immensely superior to the cheaper unlabelled article with which they have to compete. Similarly with the jams produced by Chivers at Histon. A frame with a series of, say, twelve appropriately worded photographs, to be changed daily, would be appreciated by many retailers.

*What the Railways are Doing.*

The railway companies, whose advertising has been the subject of so much adverse criticism in previous issues of *Printer's Ink*, have long realized the value of photographs. Not only have they used small photographs in carriages, but, at the termini in their parcels receiving offices and at the Shepherd's Bush exhibitions, they have used enlargements of such striking size as at once to arrest attention. At Shepherd's Bush this year the London and North Western presented an excellent cinematograph show, while at Earl's Court the Southern and Union Pacific Railway had a very fine exhibit. A small hall was tastefully hung with enlargements, and several times during the day half-hour "talks" were given, illustrated by colored lanterns and cinematograph films. Thus, a "talk" on "San Francisco and its restoration" showed about fifty different slides, and interspersed among them were "moving pictures" depicting a ride on a street car through the busiest part of 'Frisco, a fire-engine parade, seagulls following a fishing boat from which waste fish are being thrown overboard, an ostrich farm, and an entertainment in a swimming-bath. At the close I remarked to Mr. Erwin, the gentleman in charge of the exhibit, that he had not once mentioned his railway. His reply was interesting: "Oh, that doesn't matter. We want to interest people in California; once they go there, they must travel on our system." Many of our lines have monopolies, or practically so, of desirable resorts—Brighton, Eastbourne, the Norfolk Broads, Lowes-

toft, the Cornish Riviera—will they follow the Union Pacific example?

*Why Not Steamship Companies?*

If the railway companies thus realize the value of photographs, why do not the steamship companies use them more? Experts may appreciate the models that are always on show in the office windows of the leading companies, but one doubts if they appeal very strongly to the general public.

*The Inexpensive Stereoscope.*

Mention has been made of the cinematograph. Lloyds, of newspaper fame, have already a "moving picture" show, and doubtless other firms will soon follow suit. But I have not yet heard of the stereoscope being used for advertising purposes. The councils of seaside resorts, manufacturing firms, such as Cadbury's, who, in addition to their model village, must have many interesting views in their factories, might well arrange to have stereoscopes and sets of views in the reading and smoking rooms of hotels, boarding houses, clubs, etc. In America there is a huge business done in stereoscopic views—Underwoods and the H. C. White Company each turn out many thousands weekly. If people will thus buy views on the other side, it may reasonable be argued that they would, were the opportunity offered of doing so free of charge, look at them carefully in this country.

*Aids to Recruiting.*

It seems to me that photographs depicting life in the army and navy would be very much more attractive as aids to recruiting than the lithographs that one now sees displayed in public places. These all seem to have been designed with the idea that the desired recruit is most likely to be captured by the highly colored uniforms—but to my mind photographs of the kind that one sees in the sixpenny weeklies, *i. e.*, those showing maneuvres and sports, would, if shown in enlarged form, appeal more strongly to the fighting and sport-loving spirit animating, to a greater or less degree, most young Englishmen.

To repeat the quotation I used above, "Photography is valuable. It convinces by its very accuracy." The advertiser should remember this. If he does not, it is "up to" the photographer, the man who has to make his living by it, to remind him of it.—W. J. Casey in *The British Journal of Photography.*

## A QUICK-DRYING BACKING: HOW TO MAKE AND APPLY IT.

It has been so frequently advised that all exposures should be made on backed plates, that one might have expected that halation would now be a trouble of rare occurrence; but unhappily this is not the case, and perhaps the extra charge made by manufacturers for backed plates has a good deal to do with this. As backing is not a very expensive acticle to make, this extra charge is, no doubt, chiefly due to the extra manipulation required in the application of the backing, so that the amateur may save himself considerable expense by taking this not very heavy work upon himself. The objections will probably be raised that it is a dirty operation, and that the plates get fogged, especially during the long time occupied by the ordinary backing in drying. The object of these notes is to show how both the mess

and the fogged plates may be avoided. First, as to the backing itself; the points to aim at in the manufacture of such a preparation are:

1. That it should really prevent halation.

2. That it should dry quickly, and when dry should not powder or drop away from its support.

3. That it should be easily removed by an application of cold water.

After a considerable number of experiments, I have found the following formula to meet the above requirements almost perfectly:

| | |
|---|---|
| Caramel (solid) . . . . . | 1½ ounces. |
| Burnt sienna (in powder) . . . | 1 ounce. |
| Soap mixture. about . . . . | 1½ ounces. |

The caramel may be made at home by heating white sugar till completely liquid and blackened, when, on cooling, it will set into a dark, brittle, glassy mass. The soap mixture is best made by mixing together, in a bottle, 1 ounce of finely shredded Castile soap and 3 ounces of wood alcohol; this mixture should be allowed to stand for some hours, then the bottle should be kept immersed in water as hot as the hand can bear, for half an hour, being frequently shaken during this time. The undissolved portion should then be allowed to settle, and the clear liquid poured off. To make the backing, the caramel is first powdered in a mortar, then the powdered sienna added, and the two well rubbed together. To this powder sufficient of the soap mixture is then added to form a mixture of creamy consistency. At once the best and most simple method of applying the backing is to hold two plates together, face to face, and paint on the backing with a fairly large camel-hair mop. By using this method the plate is protected from the action of the dark-room light by the backing, and so fog arising from this cause is avoided. The plates need not be coated absolutely to the edge, so the operation may be performed without dirtying the fingers. After backing, the plates should be exposed to the air for about five minutes, when they will be sufficiently dry to place in the dark slide, or to repack in their original backings. When ready for development the backing may be easily and completely removed by wiping with a damp flannel or sponge. In the case of plates highly sensitive to red it might be found advisable to substitute a black powder, such as drop-black or lamp-black, for the burnt sienna prescribed for ordinary use.

## THE MOVING PICTURE SHOW, A PLEASURE-PASTIME AND EDUCATOR.

THE most eloquent and stirring tribute to the educational value of photography in its latest living-picture development is the following, from the pen of Professor Frederick Starr, of the University of Chicago, in *The Chicago Tribune:*

"I have seen Niagara thunder over her gorge in the noblest frenzy ever beheld by man—I have watched a Queensland river under the white light of an Australasian moon go whirling and swirling through strange islands lurking with bandicoot and kangaroo—I have watched an English railroad train draw into a station, take on its passengers, and then chug away with its stubby little engine through the Yorkshire dells, past old Norman abbeys silhouetted against the skyline, while a cluster of century-aged cottages loomed up in

the valley below, through which a yokel drove his flocks of Southdowns—I have been to the Orient and gazed at the water-sellers and beggars and dervishes—I have beheld fat old Rajahs with the price of a thousand lives bejewelled in their monster turbans, and the price of a thousand deaths sewed in their royal nightshirts as they indolently swayed in golden howdahs, borne upon the backs of grunting elephants—I saw a runaway horse play battledore and shuttlecock with the citizens and traffic of a little Italian village, whose streets had not known so much commotion since the sailing of Columbus—I know how the Chinaman lives, and I have been through the homes of the Japanese—I have marvelled at the daring of Alpine tobogganists and admired the wonderful skill of Norwegian ski jumpers—I have seen armies upon the battlefield and their return in triumph—I have looked upon weird dances and outlandish frolics in every quarter of the globe, and I didn't have to leave Chicago for a moment.

"No books have taught me all these wonderful things—no lecturer has pictured them. I simply dropped into a moving-picture theatre at various moments of leisure; and at the total cost for all the visits of perhaps two performances of a foolish musical show, I have learned more than a traveller could see at the cost of thousands of dollars and years of journey.

"Neither you nor I fully realize what the moving picture has meant to us, and what it is going to mean. As children we used to dream of a journey on a magician's carpet to the legendary lands, but we can rub our own eyes now and witness more tremendous miracles than Aladdin could have by rubbing his fairy lamp. But we're so matter-of-fact that we never think of it that way. We're living at a mile-a-second gait in the swiftest epoch of the world's progress—in the age of incredibilities come true. We fly through the air—chat with our friends in Paris by squirting a little spark from a pole on one shore of the Atlantic to another pole on the other side, and so we take as a matter of course that which our great-grandfathers would have declared a miracle.

"The talking machine has canned the great voices and master melodies of our time, but the moving-picture machine has done more—it is making for us volumes of history and action; it is not only the greatest impulse of entertainment, but the mightiest force of instruction. We do not analyze the fact that when we read of an English wreck we at once see an English train before us, or when we learn of a battle that an altogether different panorama is visualized than our former erroneous impression of a hand-to-hand conflict; we are familiar with the geography of Europe; we are well acquainted with how the Frenchman dresses, in what sort of a home he lives, and from what sort of a shop he buys his meat and greens.

"We take so much for granted—we are thoroughly spoiled by our multiple luxuries—that we do not bestow more than a passing thought upon our advantages, because the moving-picture machine is an advantage—a tremendous, vital force of culture as well as amusement; an economy, not only of money but of experiences. It brings the world to us—it delivers the universe to our theatre seat. The moving picture is not a makeshift for the playhouse; its dignity is greater, its importance far beyond the puny function of comedy and tragedy. It is a clean entertainment, lecture, and amusement all rolled in one; in its highest effort it stands above literature—in its less ambitious phase it ranks above the tawdry show house. It teaches nothing harmful,

and it usually teaches much that is helpful.

"Today the moving picture industry is developed to a high degree of perfection in America and in Europe. Millions of dollars are invested in the production of moving picture films—entire companies of trained and practised actors are carried to every interesting spot on the Continent and carefully drilled to enact pantomimes which will concentrate within the space of a few minutes the most entertaining and instructive incidents of the world. A new type of dramatist has arisen—men who search through the literature of the ages and construct tableaux in action which will render vividly the entire contents of famous works of the drama, of the novel, and of history.

"The moving picture is not a makeshift, but the highest type of entertainment in the history of the world. It stands for a better Americanism because it is attracting millions of the masses to an uplifting institution, drawing them to an improving as well as an amusing feature of city life. Its value cannot be measured now, but another generation will benefit more largely through its influence than we of today can possibly realize."

## IN A LIGHTER VEIN: BERNARD SHAW ON PHOTOGRAPHY.

A CROWD assembled on Monday evening, the 18th ulto., at the Photographic Salon, to hear Mr. Bernard Shaw, "improvise upon photography," and for an hour and a half, in characteristic fashion, he wandered at large over the subjects of photography, morals, and painting and its allied arts. "G. B. S.," whatever he may say, is a Conformist, and on this occasion he had donned the prosaic evening dress, and not even the red tie, beloved of Socialist and of the South Western Railway staff, marred the black and white of his raiment.

At the outset he was not quite sure that he was not addressing his audience under false pretences, but as an apology he said that he did, as a matter of fact, know something about photography. He had taken photographs. He said that much because there was still an impression that the peculiar interest attaching to his utterances on art was due to the fact that he knew nothing about it. What he had to say on the subject of photography had already been given to the world years ago, and it occupied about two pages in print. He disliked repeating himself, except in politics, where it was very necessary. With regard to photography and painting, he found very much the same need as there was in present-day politics. People needed to be

*Put Right Upon the Simplest Matters.*

All the objections that had been made to photography were applied in their day to other graphic arts; and they applied with greater force to painting and drawing than they did to photography. There was the mechanical argument, of course, which he had disposed of previously, and he did not feel disposed to dispose of it again. He did not think there was much fear of painting and drawing being superseded by photography.

The only processes of the real artist which were more tedious and much longer than photography were the processes of the oil painter. Oil painting was an extraordinarily difficult thing, and photography was not coming into

severe competition with it, at any rate for the present, *i. e.*, if we took the ordinary work of a really skilled artist in photography. One of the reasons of this was that photography was so much more troublesome and so much more difficult than the work of the ordinary artist.

At the far end of the room was a collection of photographs by an artist named D. O. Hill, to which he would refer them as confirming what he had said. Hill had produced those photographs within a comparatively short period of his life, but he found out that it was more difficult for him to work at this process of photography after having trained himself to do it than to do the ordinary drawing and painting business; and so he went back to painting, not in the least because it was necessarily more artistic, but because photography was more troublesome. The fact is, we do not realize how quickly a highly trained artist can work. Of course, the duffer would be equally successful, whether in painting and drawing or in photography; the man who is really born with a gift which he has cultivated to the utmost was what he referred to. To a duffer photography had no attractions.

Take the work of Mr. Strang, a very able draughtsman. Mr. Strang made his (Mr. Bernard Shaw's) portrait in the most difficult sort of draughtsmanship of all. Mr. Strang did not take a pencil and paper, or brush and canvas, but he put on an easel a large sheet of copper and drew his portrait straight on the copper with a hard point —not on a waxed surface spread over the copper, but with a sharp tool on the naked copper itself. There you had one of the most difficult feats that could be achieved by a draughtsman, in the most difficult material. And he had that finished in a shorter time than Mr. Coburn would have finished a photograph. And Coburn's work showed more finish than that of other photographers. People had a notion that photography was easy. What he had said showed what an appalling amount of ignorance existed in the minds of the public as to the amount of technique necessary to produce work such as Mr. Coburn had done.

He next took up the work of Sir Edward Burne Jones, who really put a great deal of routine draughtsmanship into his drawing and painting, especially in his designs for windows. The point he wished to emphasize was that had Sir E. Burne Jones been a photographer and devoted the same pains to the photographic art, he would not have produced relatively such great results. If Sir Edward had, for instance, spoiled a plate, he would have spent a great deal of time in getting that plate right instead of undertaking the business of making another; it was less trouble to do that. Of course, it would be understood that he was speaking of artists who were genuine born artists, gifted draughtsmen who knew their business.

Mr. Shaw had no doubt himself that the simplicity of the old-fashioned process of drawing beat photography altogether. He did not mean to say that the expert photographer could not get his processes through in the time that an artist took to draw a picture, no doubt he could very often. But it was his conviction that if anyone had a faculty for drawing, without which it was not worth while becoming a draughtsman, but if born with a fair endowment of that, and if it was cultivated to the utmost, then such a one would never take up photography unless he took it up for the sake of its beauties.

Many people were under the impression (quite a mistaken one) that photography could not improve on nature. A photographer could really do much more in that way than an artist could

by the ordinary drawing process. There were certain departments of art that remained outside the scope of the photographer at present. For instance, if you wanted to make a moral picture, or a didactic picture, it was necessary to invent the whole thing yourself, as Raphael did in his cartoons. The process of photography is out of place there. Somehow or other photography is very stern; there is a

*Terrible Truthfulness About Photography*

that sometimes makes a thing ridiculous. Take the case of the ordinary academician. He gets hold of a pretty model, he puts a dress on her, and he paints her as well as he can, and calls her "Juliet," and puts a nice verse from Shakespeare underneath, and puts the picture in the Gallery. It is admired beyond measure. The photographer finds the same pretty girl; he dresses her up and photographs her, and calls her "Juliet," but somehow it is no good—it is still Miss Wilkins, the model. It is too true to be Juliet. There is a whole quantity of truth about it. The painter leaves out almost the whole of the essentially truthful part of the thing. He looks at the girl, but does not see much of her; he paints the Julietty part of her. But the camera sees everything in the most provoking way, and although the photographer may begin to blot out whatever is not Juliet, he may fake his plate, but when he has gone through all that, it is still not Juliet. It is one thing not to see the truth, and not to know that you are leaving it out; it is another thing altogether to go and deliberately falsify what you have. If you want to play a particular trick with a portrait you must do it in the ordinary Royal Academician way.

We now come to what is really the unbearable truthfulness about photography. How many people have been confronted with real photographs of themselves? It is one of the exceedingly unpleasant experiences of life. (Laughter.) He distinctly remembered on one occasion many years ago, when he was younger and better looking than now, being in a certain house in Ashley Gardens. He was walking across what appeared to be a large spacious hall, when he saw

*An Extremely Disagreeable-looking Man*

approaching him. He turned aside to give him a wide berth. The disagreeable man turned also, and then it dawned on him that he was walking toward a looking glass, and the disagreeable person he saw was none other than a reflection of himself. He still remembered the curious shock this experience gave him. He did not recognize himself; he did not see his own genuine self there; it was not a genuine representation of himself. He only saw his own exterior, and he did not think that his exterior was worthy of his genius. It was a curious fact that we none of us liked to see a true representation of our corruptible bodies. This corruptible is not the real thing at all; it is only the thing which will, in a short time, be done with, thrown aside, and scrapped, whereas, the inward thing, the most vital thing, our real self, will go on living after we have done with the outward thing. In a representation of yourself you would like to see that real self.

Mr. Hay Cameron once showed him what he described as a most excellent negative he had just taken; it was of an old military officer, and it was a very striking portrait, quite untouched. It was a really very interesting face, with all the natural lines on it. He showed this negative to the original of it.

"What!" exclaimed the military gentleman; "do you mean to tell me that I have got two black lines down my face like that?" Mr Cameron sought to sooth his rage, and remarked in his most affable manner: "Those lines are the history of your life." Whereupon the old gentleman assaulted him. (Laughter.) He simply would not have it.

You will see if you look around all the professional photographic places that photography has only come into popularity by destroying all its truthful qualities.

The real part of the work, if he might venture to suggest to them what he thought, was the modelling of the face. What was wanted was a little more modelling of the face. This was the work of the retoucher, who, as a rule, took all the modelling out of the head and face and made the face resemble the surface of a visiting card for smoothness. The general work of the retoucher was to turn the photograph into something that the original could stand, something that he would be pleased with; and the first condition was that it should be entirely unlike the person it was supposed to represent. It was very amusing to hear the remarks of persons on such results. "The portrait is really quite lifelike;" "the camera gives you the exact truth;" "the camera cannot lie," and so forth. As a matter of fact (thundered the lecturer),

*The Camera Can Lie,*

and it does so most scandalously. The retoucher turns out the most absolute falsehoods in portraiture.

The thing that had to be remembered was the real antipathy in human nature to the truth. Photography goes against that, and the retoucher had to accommodate it to this feeling of resentment against the truth. He really believed that was at the bottom of the sort of feeling which many artists had of repulsion against photography. A little observation and conference with these people would show that many of them have a

*Real Hatred of Photography.*

This was an interesting psychological phenomenon. Photography is too uncompromising. And so it has to be faked. It lands the photographer into this position—that, instead of producing something that is a true representation, he produces something false, by not putting in the truth. It brings the photographer to the point of saying: "There is the truth, blot it out if you dare. Many photographers have developed considerable nerve in that direction. Many of these men have become corrupted by art." What they are trying to do is to produce a clever imitation of a picture.

He advocated an historical exhibition of photography, which would show the evolution of the art from its discovery until the present day. The history of photography had been an evolution, as had that of painting. In reviewing the history of painting he was excessively severe on present-day artists. At the present time one of the great defects about painting was that none of our painters knew how to paint. He explained that by this criticism he meant that they had not learned after the manner of an apprentice how to put paint on to canvas. He thought they could take a useful lesson from the carriage painter, whose work was really excellent from the technical point of view. Present-day artists were all hopeless duffers in handling their materials, as compared with early artists, who had mastered the use of materials.

He drew a comparison between painting and photography. Photography as he remembered its early days in this country really began with men who were tradesmen, who were despised by many of the modern school.

In days gone by photographers used to exhibit their negatives as well as their prints. Those who have had some experience know that when you got a really perfect negative you got some thing which made a bad print. The negatives which made the best prints were really horrible things. He visited Mr. Evans one day, and found him with a dirty mess in his hands, which looked like the bottom of a green glass bottle. Mr. Evans said it was a magnificent negative, and he showed a print from it, which (it goes without saying) was superb. Mr. Evans told him it took only five days to print an impression from it—that is, provided you had a good sun and kept it on the top of the house the whole time. This negative would not have gained a medal, but it was a much better one to get a print from than many of which they were so proud.

Then silver prints became all the rage. People delighted in the beautiful process of printing on silver paper; they would have nothing but that. It was one of the triumphs of photography. By its means they used to do the oddest things. They produced combinations in printing that were perfectly startling. Things could be stuck into the landscape; figures could be seen which, according to the scale of the landscape, were at least seventeen feet high. This sort of thing we could excuse in the drawings of Du Maurier, but were rather down on it when put into a serious photograph. There was no excuse for such things, and in process of time they began to produce a reaction; people began to get tired of that sort of perfection. It was a

*Very Serious Moral Question.*

Rational, responsible human beings should not be practising vices so flagrant. The law of change comes in. Human nature was so perverse that it called for change. After practising virtue it longed for something bad. In process of time somebody came along in photography with oilshop lamp-black and gum, and printed with this, and people thought the effect looked rather artistic somehow.

The same thing occurred in the other graphic arts, as, for instance, in etching. There was a perfect rage for etchings a few years ago—not good etchings, just etchings; big etchings, reproductions of big pictures. They were run after simply because they were masses of scratches and black patches. People liked them, and they talked about them, because of Rembrandt. They liked the bad things as much as the good. Rembrandt realized that his skies were bad. He gave them up. But these people, they liked his skies as much as the faces and the fingers. In the same way photography suffered. The more gum and oilshop black there was in the photograph the better people liked it. The sootier it was the more it was prized. He thought what really got admission for these things was the discovery that a great many photographs would be greatly improved if they were only taken by lenses which had some sort of relation to the human eye.

If you went to some manufacturers of lenses you could pay as much as $200 for a lens, as he had, and then found he could not use it, as it gave him so much more than the eye did. By these very expensive lenses great detail was possible in photographs, but then you did not want to see all that great detail, that high finish. Too much detail was given; you could almost see the pores of the skin. In these circumstances amateur photographers took

photographs which some people began to discover were better than the photographs of the old school, because they were less perfect in detail. This gave a turn to the art, and many began to take photographs recklessly, and impressionism in photography grew up. And now there has been enough toleration of this impressionist school, and it is beginning to be found out.

The work found in some of the exhibitions ought never to have shown as good work. He thought also that photographers would have to take seriously the more difficult processes of printing. The comparatively simple and safe processes might be left to amateurs. A great deal more in silver printing should be done. People seemed to be content to put up with the mildew effects produced.

He was not sure whether real artists would not have to begin to make their own printing papers. The trade did not supply what was wanted. In order to get real good work you had to do the thing in a very long-way-round fashion, and it did not seem to pay the large manufacturing firms to make the sort of photographic film that was needed to give a very large scale of gradation. Commercial photography could not afford to deal in the negatives which Mr. Evans contemplates for his five days' printing. But Mr. Evans was not like the rest of us; he did not have to consider money.

The successor to the gum process was the oil process, and very wonderful and terrible are some of the results.

*People Began to Love Oil.*

At the New Gallery could be seen one or two good oil prints. They were very good; and the process has very considerable artistic capabilities.

People had an idea that they could get good photography cheap; but that was out of the question, considering that a photograph takes much longer to do than a drawing. He himself possessed a drawing of Mr. Granville Barker, done by Mr. Sargent, who polished it off in two sittings with great ease. Mr. Coburn could not compete with that, and yet, if photographers were to ask the fees that an artist demanded, and got, for his work, the photographer would be considered a lunatic. If they were dependent on their art they could live by it. Mr. Coburn really solved the difficulty. He saw the difficulty of making a living by the platinotype prints, and he turned to photogravure. The old copperplate process prints for ordinary decoration of rooms had disappeared. When Mr. Coburn took to photogravure he did not put on a velvet coat, but went to a trade school and worked at it in a trade way. He began

*To Produce Weird Little Things;*

but finally, after going through an apprenticeship, he is master of the subject of photogravure. There was a great future for this kind of print; you could hardly tell it from a platinum. That is the latest development of the photographic art. It would be interesting to ask Mr. Coburn whether in giving up the old process, he has sacrificed any of its good qualities. If this departure is going to succeed, the original plates would not have to be overexposed, and there would be an enormously high quality of tradesman's work required in the production of the finished article.

He hoped the Linked Ring would turn over his suggestion and try and get a sort of historical exhibition on the lines he had indicated. Let them begin with the photographs of the late D. O. Hill, who he thought had been a little overpraised. The work of Mrs. Cameron might also be shown, and so

on in that direction. Give an exhibition of "Daguerreotypes," get a lot of old silver prints, and some first gum prints; after that some of Mr. Evans' platinum prints; then some modern oil prints, and then Mr. Coburn's photogravures. It would perhaps be too much to get alongside this collection a series of old paintings too, beginning with Van Dyck, going on to the sixteenth century, and then coming on to the incompetent daubers like Reynolds, bringing in Gainsborough and Mulready. In this way you would get a really intelligently arranged exhibition.—*Photography and Focus.*

## 1844—1909.

One of the most interesting exhibits at the Salon, held under the auspices of The Linked Ring in London recently, was the collection of twenty-eight of D. O. Hill's pictures. "The Bandit," writing in *Photography*, makes the following comments for the benefit of the "straight print, pure photography" worker:

Of the million or more amateur photographers known to exist in the British Isles, probably not five thousand care two straws about that institution which they see alluded to in these and other pages as "The Linked Ring." Nevertheless, I want to draw a lesson this week from the 1909 Salon, though by the time these lines are in print, it may have closed its doors. That is a pity, for I should have liked some of my readers to go and learn the lesson first hand; however, if this cannot be managed, you must take my word for the truth of what I am going to say.

You must know that at this year's Salon there is a whole wall devoted to an historical loan collection of the photographs of D. O. Hill—an artist who has been in his grave some fifty years or so. The photographs were taken in 1844, or thereabouts, on paper "plates," and printed on what may fairly be said to correspond to our modern P.O.P. And behold, these palpably "mechanical" photographs—"pure photography" because nothing else was feasible—taken between 1844 and 1847, literally "knock spots" off nine-tenths of the slap up-to-date gummy and oily and altogether twentieth-century photographs that are to be seen hung all round the other three walls of the gallery.

I must not waste space describing work which the majority of my readers will never see; but believe me, these Hill prints are beautiful, and truly worthy the adjective artistic. And what they demonstrate is this: that in the hands of an artist there is no such thing as "mechanical photography." Give an artist a plate and a piece of P.O.P. and he will produce a work of art; while the would-be artist, who hasn't art in him, will need gum and tissue paper and heaven knows what, and at the end of it all won't have produced a picture worth a button.

I had seen but little of Hill's work before I saw the twenty-eight examples at the Salon, and I am bound to say that when I had studied these beautiful prints I could have sung a chant of joy. For I delight in pure photography, and latterly I had grown discouraged in preaching it, as I saw the crowd all running after brush-tricks. But Hill (if they will only look at him) serenely answers them. I don't say that he proves that brushwork photography is "inartistic." It would be silly to say that, for it all depends on

the photographer, not on his methods. What he does say is that brush work photography is not necessary; that in the hands of an artist the camera, properly guided, and then trusted to do its own job, will produce a work of art. You can print it on glossy silver paper, and it will still be a work of art.

All of which is a very salutary lesson; and I humbly hope that I, as a critic, am laying it to heart as much as I want you, my readers, to lay it to heart. So now I have been looking for "pure photography works of art" in my bundle of prints—P.O.P.'s for preference. And though I must say straight out that so far I haven't found any, am I downhearted? No! I am going to continue my search till death do us part. The memory of Hill at the 1909 Salon will cheer me when I get discouraged.

## BOOKS RECEIVED.

*Photograms of the Year* 1909: *Typical Photographic Pictures of the Year Reproduced and Criticised.* Edited by H. SNOWDEN WARD. 160 pages, with about 200 engravings. Paper covers, $1.00; cloth bound, $1.50. American agents: Tennant & Ward, New York.

As this series of *Photograms of the Year* grows its individual numbers become more and more indispensable to the worker in photography who would keep himself informed of the progress of picture making with the camera. Like its predecessors, *Photograms of the Year* 1909 reproduces a large varied selection from the best pictures of the year by workers of many different countries, some of which have been seen at the great exhibitions and others which have not yet been exhibited. The pages of *Photograms of the Year* are rich with interest and suggestion. Despite the many difficulties of reproduction offered by the modern photograph, the pictures, on the whole, are very satisfactory in their rendering, and the book has evidently been printed with unusual care, so that the illustrations with their lessons for the pictorialist can be profitably studied. In the text we have papers on pictorial photography by the editor, by Robert Demachy, M. M. Leon, F. Matthies Masuren, and Walter Burke, covering the progress of the pictorial movement in France, Germany, Spain, and Australia. The most notable contribution is that by the editor on "The Work of the Year," which describes and criticises the illustrations given in the book, with notes on the great exhibitions. We know of no work more profitable in suggestion and example for the pictorialist than *Photograms of the Year*, and advise our readers to get this new volume and study its pages, as a sure means of progress.

*Studies of the Human Form, for Artists, Sculptors, and Scientists.* By R. W. SHUFELDT, M.D., Philadelphia, Pa.: F. A. Davis Company, 1909.

A work of considerable magnitude, covering some seven hundred pages, with over four hundred illustrations. It is perhaps the most complete study of the nude figure in the English language. Dr. Shufeldt has spent many years on its production, and has gathered together much valuable information on the subject. The illustrations are mostly reproductions of photographs made in his own studio or open air solitudes.

The book is such a complete treatise on the human form that it would be impossible and rather out of our province to review it adequately in these pages. Dr. Shufeldt must class the photographer as either an artist or a scientist, for he devotes several chapters to the subject from the photographic viewpoint. The photographer who takes up this kind of work will find the chapters on "Studies of the Art Photographer," "Methods of the Artists," and "Further Considerations of Studio Work" both helpful and interesting.

The book is of a reminiscent nature throughout, and the author details many of his trials in securing good pictures, which will be of service to workers in this difficult branch of photography. The illustrations are more practical than pictorial, and in many cases simple records of anatomical peculiarities and selected for their usefulness to illuminate the author's text. This very necessarily debars the book from general circulation, its sale being restricted to persons who have a legitimate use for such studies.

We are inclined to agree with Mr. H. Snowden Ward when he says, "Considered purely from the pictorial point of view, this book with its hundreds of illustrations does not at all modify our opinion that for practical purposes the study of the nude is almost an impossible subject for photographers."

The book is handsomely printed, no expense seems to have been spared in its production, and is a credit to its publishers. Prospectus and conditions of sale can be had on application to this office.

*Photography in a Nutshell.* By "THE KURNEL." New York: Tennant & Ward. Paper, 25 cents.

A handbook on elementary photography for the beginner. Contains much useful information in a small space.

*The A B C Guide to Autotype Carbon Printing.* London: The Autotype Company, 1909. George Murphy, Inc., United States Agents. Paper, 50 cents.

The latest revised instructions on the making of carbon prints. The instructions are simple and the various manipulations are shown by illustrations, so that the beginner can take up this beautiful process and be able to produce prints with as much ease as a gaslight print.

## TRADE NOTES.

*The Sun Worshipper*, an attractive little booklet issued by the Defender Photo. Supply Co., Rochester, N. Y., being an introduction to *The Tipster*, also issued by this company, and which should be read by every photographer who makes prints. Copies of both will be sent on application to the DEFENDER COMPANY.

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DR. OTTO SCHOTT, the founder of the famous Jena Glass Works known under the name of Schott & Genossen, has been visiting the United States, and was the guest in Rochester of the Bausch & Lamb Optical Co.

Dr. Schott and his wife arrived in New York the last of September, and went directly to the Seattle exposition. Returning, they went to Yellowstone National Park and visited the cities of interest en route. They remained in Rochester a week, making a trip to Niagara Falls, and left for Boston and New York, sailing for home November 3.

When the great Abbe was working out the practical application of his theories he was confronted with the question of suitable glasses, and it was a grave one. When he began work, optical glassmaking had advanced very little, if at all, from the position it had occupied for a number of years. As late as 1876 he lamented that, while the opticians had a fully developed theory and a thoroughly tested practice, no one had shown how to make glass suitable for the construction of the necessary lenses. He asked for volunteers, and in response to his appeal Dr. Otto Schott, a Westphalian, entered the field,

made many experiments and succeeded. The enthusiasm of one man inspired another. Schott tried all manner of chemical elements which form vitreous compounds. These samples were tested by Abbe, and it soon became possible to establish the relationship between given chemical compositions and optical results. So great was the interest aroused in the work that the Prussian government lent financial aid. Today the glass works of Jena are known to the photographic public in all parts of the world.

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ALWAYS famous for their splendid catalogues, the C. P. Goerz American Optical Company has just issued a catalogue that for combined beauty and usefulness will be a model to future catalogue makers for some time to come. Besides the information concerning the Goerz lenses, the book contains an unusual amount of information on lenses in general. It is beautifully illustrated and magnificently printed. We congratulate the Goerz Company and Mr. Dillenbeck on the production of such a handsome yet business-like catalogue. It will be mailed to any of our readers upon receipt of six cents in stamps to cover postage. Send for a copy if only to see what good advertising is. THE C. P. GOERZ AMERICAN OPTICAL CO., 79 East 130th St., New York.

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The ANSCO COMPANY will be glad to send their twin books of *Photography* to any pub-tographer. They demonstrate the way to get the best prints from photographic negatives, and contain a mine of useful information. You get your living by the prints you sell—the better the prints the better the price. If you are not satisfied with the prints you are making or the prices you are getting, you had better write the ANSCO COMPANY, Binghamton, N. Y.

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WE are asked to announce to the trade that the DEFENDER DRY PLATE COMPANY is now marketing the Vulcan Dry Plate and is prepared to make shipments in any quantity. The announcement further states:

"The Vulcan Dry Plate is built to compete with any dry plate on the market and show more quality than the best. It is the result of three years of constant effort to make a dry plate that combined the two essentials necessary to a successful reception by the intelligent photographic trade. These essentials are speed and quality. Without being unnecessarily verbose, we can say truthfully that in comparative tests with plates of recognized highest standard the Vulcan Plate proved itself faster and of better quality. Already we have numerous testimonials from large consumers stating this fact in unequivocal terms."

The Defender Photo Supply Co., of Rochester, N. Y., is the trade agent of the Defender Dry Plate Company, which is located at Wayne Junction, Philadelphia, Pa. The branches of the Defender Photo Supply Co., located in all principal cities, carry the Vulcan Dry Plates in stock.

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THE C. P. GOERZ AMERICAN OPTICAL CO., ask us to announce that they have just appointed Burke & James, Inc., of Chicago, their sole distributing agents for Chicago and the Middle Western States. Burke & James will carry a very complete line of the Goerz goods, and it is requested that all orders from this territory be sent to them for prompt attention.

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BURKE & JAMES ask us to announce their appointment as Chicago and Middle Western agents for the C. P. Goerz American Optical Co. They will at all times carry a very complete line of Goerz lenses, and will be in a position to give prompt attention to all orders. The trade will be glad to know that the Goerz lens is in such good hands.

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WE have received from Burke & James one of their new Ibso shutters, and must say that for neat appearance and smooth working we have not seen its equal at anything like its price. It is made by the manufacturer of the well-known Koilos shutter, which it somewhat resembles. The Ibso shutter is by no means an ordinary shutter. It is the only medium-priced shutter employing the sector system; it operates at speeds of one second to $\frac{1}{150}$ with bulb and time exposure, with a safety lock to prevent accidental exposures; the finish and workmanship are of the best; its light weight and simplicity of operation will make it a highly popular shutter. We have no hesitation in recommending it for small hand cameras.

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THE great revival of interest in the Daguerreotype has brought many of these wonderful old portraits to light again and many are being brought to the photographer to be restored and cleared. The photographer who gets this kind of work to do will find in Brock's *Reclarifier* a solution which removes discoloration and fog and makes these old pictures as clear and vigorous as when first made. Good copies can then be made, and are often a source of further business. Further particulars can be had of N. BROCK & Co., Patton Ave., Asheville, N. C.

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IF you have a stock of old negatives for which you have no further use, why not turn them into money? Write to L SOLOMON, 215 Bowery, New York. He pays highest prices and is thoroughly reliable.

# WILSON'S PHOTOGRAPHIC MAGAZINE

A MONTHLY MAGAZINE FOR PRACTICAL PHOTOGRAPHERS

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T. DIXON TENNANT, Editor

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## EDITOR'S TABLE.

THE final meeting of the Executive Board of the Photographers' Association of New England for 1909 was held in Boston recently. The books of the Secretary and Treasurer were audited and found correct. They showed a paid-up membership of 332 and a net profit of $36.00 on the year's work making a total of $2326 in the treasury. By a change in the Constitution the year now begins on October 1 instead of January 1, and the board for 1910 has already held two meetings, to consider important matters in regard to the 1910 Convention. A very aggressive campaign has been mapped out and every possible effort will be made to make the Convention a pronounced success.

GEO. H. HASTINGS,
Secretary.

MR. ARTHUR HAMMOND, three of whose clever boy studies we reproduce in this issue, is at present open for a position as operator. Mr. Hammond has shown us quite a number of portrait studies, and any studio needing a good operator would do well to communicate with him. Letters addressed to A. HAMMOND, care of this magazine, will be forwarded.

WE have on various occasions referred to the indifferent showcase displays made by some of the New York studios, especially where the same prints are on view for months and in some cases years at a stretch. It is not to be inferred, however, that all Metropolitan studios are unmindful of the importance of the showcase. Passing the showcase of PACK BROS. on Broadway, on the morning that the death of Richard Watson Gilder was announced, we pushed into the crowd around the case and saw a very fine portrait of Mr. Gilder which had been placed there within an hour of the newspaper announcement of the death. The MISHKIN STUDIO, at Fifth Avenue and 34th Street, also had a portrait of the deceased editor displayed on the same day.

A MEETING of the Professional Photographers' Club of New York was held on Nov. 11, when three handsome loving cups offered by Mr. Fred. Becker were competed for. They are to be known as Aristo prizes, and were awarded to Mr. I. Bixbaum, Mr. J. Goodman, and Mr. P. Gluckman, all of Brooklyn. The awards were made in the order given. The feature of the competition was quality rather than quantity. Mr. George Bassett gave an instructive criticism of the work exhibited, and an unusually interesting evening was spent. At the club's previous meeting, held October 29, the moving pictures made at the Eastman Kodak works, while the members of the P. A. of A. were being entertained at Kodak Park last July, were put on the screen and much enjoyed. Eleven new members were enrolled at this meeting.

FROM MR. L. F. BACHRACH, of Worcester, Mass., we have received a neat catalogue of an exhibition of "prominent people in and out of Worcester." The list contains the names of some of the most prominent people in the country, and would doubtless attract a considerable attendance and lead to increased business at the Bachrach Studio.

WE recently received a catalogue of the Fifty-fourth Annual Exhibition of the Royal Photographic Society of Great Britain, held in London during the month of October. Among the exhibitors from the United States we note the names of R. T. Dooner, of Philadelphia; A. J. Meyer, Long Branch; H. W. Minns, Akron, Ohio, and Carl Semon, Cleveland, Ohio. The illustrations include a portrait of Pirie MacDonald, Esq., by Furley Lewis, that seems to have missed fire.

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